

MONSANTO COMPANY 600 13TH STREET, NW

WASHINGTON, D.C. 20005 http://www.monsanto.com

SUITE 660

February 23, 2001

Office of Pesticide Programs (7504C)
Document Processing Center (NOTIF)
U.S. Environmental Protection Agency
Crystal Mall #2, Room 266A
1921 Jefferson Davis Highway
Arlington, VA 22202-4501

Attention:

Mr. James A. Tompkins

Team Leader (25)

Subject:

Roundup Original Herbicide (EPA Reg. No. 524-445)

Notification of Distributor Supplemental Labels for

Cotton with the Roundup Ready Gene In-Crop Applications

Dear Mr. Tompkins:

In our letter dated January 8, 2001, Monsanto submitted for your files, three (3) copies of the final printed supplemental label for Roundup Original Herbicide (EPA Reg. No. 524-445, Print Plate No. 21154Y3-33) for the above use. The minor change is the updated expiration date. Monsanto would like to notify the Agency that the following distributor supplementals have been initiated as well.

Buccaneer Herbicide (EPA Reg. No. 524-445-55467, Print Plate No. 21147Y3-9), Mirage Herbicide (EPA Reg. No. 524-445-34704, Print Plate No. 21148Y3-10), Rattler Herbicide (EPA Reg. No. 524-445-5905, Print Plate No. 21150Y3-10), Silhouette Herbicide (EPA Reg. No. 524-445-1381, Print Plate No. 21149Y3-9), NuFarm Credit (EPA Reg. No. 524-445-71368, Print Plate No. 21169Y3-7) and GlyFlo (EPA Reg. No. 524-445-51036, Print Plate No. 21171Y3-9).

"This notification is consistent with the provisions of PR Notice 98-10 and EPA regulations at 40 CFR 152.46, and no other changes have been made to the labeling or the confidential statement of formula of this product. I understand that it is a violation of 18 U.S.C. Sec. 1001 to willfully make any false statement to EPA. I further understand that if this notification is not consistent with the terms of PR Notice 98-10 and 40 CFR 152.46, this product may be in violation of FIFRA and I may be subject to enforcement action and penalties under sections 12 and 14 of FIFRA."

If you have any questions regarding this submission, please feel free to contact me through Dr. Marsha Gray or directly at 314-694-9036.

Sincerely.

Debra Hinton

Registration Specialist

CC:

M. Gray

A. Kirk

Monsanto

Monsanto Company Suite 1100 700 14th Street, N.W. Washington, D.C. 20005

March 20, 1998

Hand Delivered

Office of Pesticide Programs
Document Processing Center (Final Printed Labels)
U.S. Environmental Protection Agency
Room 266A, Crystal Mall #2
1921 Jefferson Davis Highway
Arlington, VA 22202

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Attention:

Mr. James A. Tompkins (7505C)

Team Leader (25)

Subject:

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Glyfos Herbicide (EPA Reg. No. 524-445-4787)

New Final Printed Labels

Dear Mr. Tompkins:

I enclose for your files, five (5) copies of new Final Printed Labeling for Glyfos Herbicide, a Distributor Supplemental product sold by Cheminova, Inc. I realize that we are not required to send Distributor labels, but since Cheminova have independent glyphosate registrations as well, I thought that you may wish to have this label as a reference.

The text of this new labeling is composed of text approved on Honcho Herbicide (524-445), Roundup Herbicide (524-445), and the previous Glyfos Herbicide labels. As specified in the Monsanto-Cheminova agreement, certain use sites have been deleted from this label as compared to the 1997-1 Honcho Herbicide label as allowed by 40CFR 152.132 (d) (5). These include:

- The deletion of uses in tree nurseries on p. 49 under the heading "Ornamentals and Christmas Trees".
- The deletion of wiper applications in wheat on p. 69 under "Selective Equipment".

Monsanto

Monsanto Company Suite 1100 700 14th Street, N.W. Washington, D.C. 20005

March 20, 1998

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Mr. James A. Tompkins (7505C)

Team Leader (25)

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Glyfos Herbicide (EPA Reg. No. 524-445-4787) New Final Printed Labels

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- The deletion of uses in tree nurseries on p. 49 under the heading "Ornamentals and Christmas Trees".
- The deletion of wiper applications in wheat on p. 69 under "Selective Equipment".



Mr. Tompkins Page 2 20-Mar-98

- The deletion of the section entitled "Postharvest Grain Sorghum, Sorghum Regrowth Control" which would have appeared immediately ahead of "Pastures" on p. 75.
- On p. 75, the use on sugar cane was restricted to "fields to be planted to sugar cane" rather than the directions for Honcho Herbicide which allows use "prior to the emergence of sugarcane".

If you have any questions on this matter please feel free to contact me through Dr. Russell P. Schneider or directly at 314-694-1582.

Sincerely,

Stephen J. Wratten

Manager, Registrations

cc: R. P. Schneider

D. Fee-White

D. Rasmusson

\$EPA	United States Environmental Protection Washington, DC 20460	•	Registrat Amendm x Other			1413
	Application	for Pesticide - Sec	tion I			
Company/Product Number	524-445-4787	2. EPA Product Mar	-	1 ~~~	posed Class	-
. Company/Product (Name) Glyfos® Herbicide	PM# 25	Ollipkiitis	- [X] 	None	Restricted
Monsanto Comp 700 14th Stre Washington, D	et, N.W., Suite 1100	(b)(i), my product to: EPA Reg. No.	veiw. In accordantis similar or identic	al in con	nposition a	
, Check a the	2 12 8 USA GUOLEST	Product Name Section - II	***************************************			
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Amendment - Explai	n below.	X Final prints Agency let	ed labels in repsonse : iter dated	to 	,	·····
Resubmission in res	ponse to Agency letter dated		Application.			4.
Notification - Explair	below.	Other - Exp	plain below.	-		
Material This Product Wi	1	Section - III				
Yes No Certification must submitted	Yes No. per.	Yes No If "Yes" No per Peckage wgt		ontainer Metal Plastic Gless Paper Other (S	pecify)	1, y
Label Label	Information 4. Size(s) Retail	Container	5. Location of Labe	Direction	18	10 50 50 10 5 50 10 5 50 10 52 50 5 54
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Contact Point (Complete	items directly below for identification o		····· · ··	ess this	epplication.	////////////////////////////////////
Russell P. Sch	neider, Ph.D.	Agricultural Re Director		•	No. (Includ 783-246	le Area Code)
I certify that the state I acknowledge that ar both under applicable	Certificatio ments I have made on this form and all by knowlingly false or mislaeding staten law.	attachments thereto are tru	e, accurate and com- ine or imprisonment	olete.		
Signature Signature	Trad 3.	Пи Manager, Registr	· 15.6			
Typed Name Stephe	n J. Wratten, Ph.D. 5.1	Date March 20, 19	198			う

PAPERMORK REDUCTION ACT MOTICE and INSTRUCTIONS

PAPERMORK REDUCTION ACT MOTICE: Public reporting burden for this collection of information is estito average 0.85 hour per response, including time for reviewing instructions, searching existing data sources, gathering maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the b estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Chie Information Policy Branch, PM-225, U.S. Environmental Protection Agency, 401 N Street, SJ, Mashington, DC 20460; and t Office of Information and Regulatory Affairs, Office of Ranagement and Budget, Washington, DC 20503.

INSTRUCTIONS: This form is to be used for all applications for new registration, and use reregistration, amendment resubmission, to applications for notifications, first printed labeling, reregistration, etc. In order to process an application for a new registration submitted on this form, the following material must accompany the application:
1. Certification with Respect to Citation of Data (EPA Form 8570-29). [If not exempted by 40 CFR 152.81 (b) (4

2. Confidential Statement of Formula (EPA Form 8570-4);

3. Formulator's Exemption Statement (EPA Form 2570-27);

4. Five copies of draft labeling;

Three copies of eny data submitted;

Authorization letter where applicable;

7. Matrices where applicable.

Submission of Labeling - Labeling should first be submitted in the form of draft labels with all applications for new registration. Such draft labels may be in the form of typed label text on 8.5 x 11 inch paper or a mockup of the proposlabel. If prepared as a wockup, it should be constructed in such a way as to facilitate storage in an 8.5 x 11 inch file Mockup labels significantly smaller than 8.5 x 11 inches should be wounted on 8.5 x 11 inch paper for submission. Submission of Data - Date submitted in support of this application must be submitted in accordance with PR Notice 86-5.

SPECIFIC INSTRUCTIONS: Please read the instructions listed below before completing this application. First determine the type of registration action, listed in Block A, for which you are submitting this application. For applications submitted in connection with New Registration actions, Sections 1, III, and IV must be completed by the ' applicant. For applications submitted in connection with amended registration actions, resubmissions, notifications, reregistrations, etc., Sections I, II, and IV must be completed by the applicant. Block A 4 Check the appropriate action for which you are submitting this form.

A SECTION 1 - This section must be completed, as applicable, for all registration actions.

 Company/Product Number - Insert your Company Number, if one has been essigned by EPA. This number may have been essign to you as a basic registrant, a distributor, or as an establishment. If your product is registered, insert the Product Bater.

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2. EPA Product Ranager - If known, fill in the name and PM number of the EPA Product Ranager.

 Proposed Classification - Specify the proposed classification of this product.
 Product Home - Enter the complete product name of this posticide as it will appear on the label. The name must be specific to this product only. Duplication of mames is not permitted among products of the same company. Do not inclu any brand name or company line designations.

5. Name and Address of Applicant - The name of the firm or person and address shown in your application is the person or ℓ to whom the registration will be issued. If you are acting in behalf of another party, you must submit authorization for -that party to act for them in registration matters. An applicant not residing in the United States must have an authorized agent residing in the United States to act for them in all registration matters. The name and complete wall address of such an agent must accompany this application.

6. Expedited Review - FIFRA section 3 (c) 3 (B) provides for expedited review of applications for registration, or amendment to existing registrations, that are similar or identical to other posticide products that are currently registered with the EPA. In order for your application to be eligible for expedited review, you must provide us with the EPA Registrati Number and product name of the product you believe is similar to or identical to your product. The product must be similar or identical in both formulation and labeled uses.

SECTION II - This section must be completed for all applications submitted to smend the registration only of a currently registered product (Ameridaent), for a resultaission in response to an Agency letter, for notifications to the Agency, for th submission of final printed labeling, for reregistration and for any other action that pertains to a specific EPA-registers product.- This section is not to be used for a new application for registration.

1. Subject of submission - Check the applicable block and provide the Agency letter date if appropriate. Provide a brief explodetion of the purpose(s) for the submission, such as "the addition of a site, pest or crop (specify)"; "amend the Confidential Statement of Formula by..." "peregistration submission" general label revision of use directions." .Attac a separate page if additional space is needed.

SECTION III (Packaging and Container Information) - This Section must be completed for all applications submitted in connection with new registration or applicable amendments. Type of Packaging Check the appropriate block if your product will be packaged in the indicated packaging types.

Indicate the size of the individual packets and number per retail container.

2: Type of Betail Container - Indicate type of container in which product will be surketed.
3. Lightien of Net Contents - Specify the net contents of all retail containers for your product.

4. Size(a); of Batail Container - Specify the net contents of all retail containers for your product.

5. Lighties of Use Directions - Indicate the location of the use directions for your product.

6. Administration which label is affixed to product - Indicate the method product label is attached to retail container.

Lu (85 note)

SECTION IV (Contact Point) - This Section must be completed for all applications for Registration actions, i.e., new products registration, resubmission, "me-too," reregistration, etc.
1-5. Self-explanatory.

150

6. EPA Use Only.

. White - EPA File Copy (original) - Yellow - Applicant Copy m,8570-1 (Rev. 3-94) Previous aditions are corolete. GLYPHOSATE

Glyfos

() CHEMINOVA

Complete Directions for Use

EPA Reg. No. 524-445-4787 .

AVOID CONTACT WITH FOLIAGE, GREEN STEMS, EXPOSED NON-WOODY ROOTS OR FRUIT OF CROPS, DESIRABLE PLANTS AND TREES, SINCE SEVERE INJURY OR DESTRUCTION MAY RESULT.

Glyfos is a registered trademark of CHEMINOVA AGRO A/S.

1998-1

21110W2-3/53

4....

Read each of these sections of this label for essential product performance information.

GENERAL INFORMATION

MIXING, ADDITIVES AND APPLICATION INSTRUCTIONS

WEEDS CONTROLLED

NONCROP USES

CROPPING SYSTEMS

MINIMUM TILLAGE

TREE AND VINE CROPS

Glyfos

() CHEMINOVA

MARKERS

Complete Directions for Use

EPA Reg. No. 524-445-4787

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MIXING, ADDITIVES AND APPLICATION INSTRUCTIONS

WEEDS CONTROLLED

NONCROP USES

CROPPING SYSTEMS

MINIMUM TILLAGE

TREE AND VINE CROPS

Read the entire label before using this product

Use only according to label instructions.

Read "LIMIT OF WARRANTT AND LIABILITY" before buying or using if terms are not acceptable, return at once unopened.

REFORMULATION IS PROHIBITED. SEE INDIVIDUAL CONTAINER LABEL FOR REPACTAGING LIMITATIONS.

LIMIT OF WARRANTY AND LIABILITY

This Company warrants that this product conforms to the chemical description on the tabel and it reasonably fit for the purposes set forth in the Complete Directions for Use label booklet (Directions) when used in accurdance with those Directions under the conditions described therein. NO OTHER EAPRESS WARRANTY OR IMPLIED WARRANTY OF FITNESS FOR PARTICLEAR PURPOSE OR KERCHANTABILITY IS MADE. This warranty is also subject to the conditions and binizations stated herein.

Buyer and all uters shall promptly notify this Company of any claims whether based in contract, negligence, strict biability, other fort or otherwise.

Buyer and all users are responsible for all lots or damage from use or handling which results from conditions beyond the control of disc Company, including, but not femiled to, incompatibility with products other than those set forth in the Directions, application to or contact with desirable regetation, unusual weather, weather conditions which are outside the range considered normal at the application site and for the time period when the application ranges set forth in the Directions, application in any manner not exploitly set forth in the Directions, moisture conditions outside the moisture range specified in the Directions, or the presence of products other than those set forth in the Directions, or the presence of products other than those set forth in the Directions in or on the soil, crop or treated reg-

THE EXCLUSIVE REMEDT OF THE USER OR BUTER, AND THE LIMIT OF THE LIBELITY OF THIS COMPANY OR ANY OTHER SELLER FOR ANY AND ALL LOSSES, INJURIES OR DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT (INCLUDING CLAIMS RASED IN CONTRACT, REGLIEFINCE, STRICT PLABILITY, OTHER TORT OR OTHERWISE) SHALL BE THE PURCHASE PRICE PAID BY THE USER OR BUTER FOR THE QUANTITY OF THIS PRODUCT INVOLVED.

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OR, AT THE ELECTION OF THIS COMPANY OR ANY OTHER SELLER, THE REPLACEMENT OF SUCH QUANTITY, OR, IF NOT ACQUIRED BY PURCHASE, ANY OTHER SELLER BE LIABLE FOR ANY INCIDENTAL CONSEQUENTIAL OR SPECIAL DAMAGES.

Buyer and all meets are deemed to have accepted the terms of this UMII OF WARRANTY AND MABILITY which may not be varied by any rerbal or written

LIMIT OF WARRANTY AND LIAB PRECAUTIONARY STATEMENTS ENVIRONMENTAL HAZARDS INGREDIENTS	
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PRECAUTIONARY STATEMENTS

Hazards to

Humans and Domestic Animals

Keep out of reach of children.

WARNING! AVISO!

Si usted no entitende la etiqueta, busque a alguien para que se la explique a usted en detalle. (Il you do not understand the label, find someone to explain it to you in detail.)

CAUSES SUBSTANTIAL BUT TEMPORARY EYE INJURY.

HARMFUL IS SWALLOWED OR INNALED.

Do not get in tyes or on clothing.

Avoid breathing vapor or spray mist

FIRST AID: IF IM EYES, immediately hold eyelids open and flush with plenty of water for at least 15 minutes. Get medical artention.

15 IMHALED, remove individual to bresh air. Il not breathing, give artificial respiration: preferably mouth-to-mouth. Get medical attention

IF SWALLOWED, this product will cause gastrointestinal tract irritation. Immediately ditute by swallowing water or milk. Get medical attention. NEVER GIVE ANTIHING BY MOUTH TO AN UNICONSCIOUS PERSON.

Personal Protective Equipment (PPE)

Applicators and other handlers must wear: long-sleered shire and long pants, shoes plus socks, and protective gravear. Oiscard dothing and other absorbent materials that have been drenched or hearthy contaminated with this product's concentrate. Do not reuse them, follow manufacturer's instructions for theaning/attaintaining PPE. If no such instruc-tions for washables, use detergent and hot water. Reep and wash PPE separately from other bandry.

When handlers use dosed systems, endosed cabs, or aircraft in a manner when nanours use consent systems, encourse cans, or autoratin a manner that meets the requirements listed to Worker Protection Standard (WPS), for agricultural pesticides [40 GR 170.240 (d) (4-6)), the handler PPE requirements may be reduced or modified as specified in the WPS.

User Safety Recommendations:

Dieri should:

- Wash hands before eating drinking chewing gum, using tobacco, or using the miles.
- Remove during immediately if pesticide gets inside. Then wash thoroughly and put on dean dothing.

In case of a human health emergency involving this product, Call Collect, day or night, (314) 694-4000.

Environmental Hazards

Do not apply directly to water, to areas where surface water is present or to interoidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters.

Physical or Chemical Hazards

Spray solutions of this product should be mixed, stored and applied using only stainless steel, aduminum, fiberglass, plastic or plastic-lined steel containers.

DO NOT ATM. STORE OR APPLY THIS PRODUCT OR SPRAY SOLUTIONS OF THIS PRODUCT IN GALVANIZED STEEL OR UNLINED STEEL (EXCEPT STAINLESS STEEL) CONTAINERS OR SPRAY TANKS. This product or spray solutions of this product react with such containers and tanks to produce hydrogen gas which may form a highly combustible gas mixture. This gas mixture could flash or explode, causing serious personal injury, if ignited by open flame, spark, welder's torch, lighted agazette or other ignition source.

ACTIVE INGREDIENT:

'Glyphonate, N-(phosphonomethyl)glycine, in the

form of its inopropytamine salt.

INERT INGREDIENTS:

59.0%

*Contains 480 grams per fitne or 4 pounds per U.S. gallon of the active ingredient glyphosate, in the form of its isopropytanine salt. Equivalent to 356 grams per litre or 3 pounds per U.S. gallon of the acid. glyphosare.

This product is protected by U.S. Patent No. 4,405,537. Other patents pending. No ficense granted under any non-U.S. patent(s).

DIRECTIONS FOR USE

It is a violation of federal law to use this product in any manner inconsistent with its labeling. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulations.

Agricultural Use Requirements

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 UR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, foreast, nurseries, and greenhouses, and handlers of agricultural posticides. It contains requirements for training, decontaining ion notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is coveralls, waterproof gloves, shoes plus socks, and protective eyewear.

Non-Agricultural Use Requirements

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFA Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, surseries or greenhouses.

Keep people and pets off treated areas until spray solution has dried to prevent transfer of this product onto desirable regetation.

for more product information, call toll-free 1-800-548-6113.

Storage and Disposal

Bo not contaminate water, foodstuffs, feed or seed by storage or disposal. See container label for STDRAGE AND DISPOSAL instructions.

GENERAL INFORMATION

DO NOT APPLY THIS PRODUCT USING AFRIAL SPRAY EQUIPMENT EXCEPT UNDER CONDITIONS AS SPECIFIED WITHIN THIS LABEL.

This product, a water sofuble fiquid, mixes readily with water to be applied as a locar spray for the control or destruction of most herbaceous plants. It may be applied through most standard industrial or field-type sprayers after dibrition and thorough mixing with water in accordance with label instructions.

This product moves through the plant from the point of foliage contact to and into the root system. Yields effects on most annual weeds occur within 2 to 4 days, but on most perennial weeds may not occur for I days or more. Extremely cool or cloudy weather indiowing treatment may slow activity of this product and delay witted effects of control. Yields effects are a gradual willing and yellowing of the plant which advances to complete browning of above-ground growth and deterioration of underground plant parts.

Unless otherwise specified on this label, delay application until regetation has emerged and reached the stages described for control of such regetation under the "WEEDS CONTROLLED" section of this label. Unemerged plants arising from unastrached underground rhizomes or root stocks of perennials will not be affected by the herbicide and will continue to grow. For this reason, best control of most perennial weeds is obtained when treatment is made at late growth stages approaching manurity.

Aways use the higher rate of this product per 2012 within the recommended range when (!) weed growth is heavy or dense, or (?) weeds are growing in an undisturbed (nonntinvated) area.

Do not treat weeds under poor growing conditions such as drought stress, disease or insect damage, as reduced weed course may result. Reduced results may also occur when treating weeds hearily covered with dust.

Reduced control may result when applications are made to annual or perennial weeds that have been mowed grated, or cut and have not been though to reduce to the incommended study for maximum.

Rainfall or irrigation occurring within 6 hours after application may reduce effectiveness theory rainfall or irrigation within 2 hours after application may wash the chemical off the foliage and a repeat treatment may be required.

This product does not provide residual weed control. For subsequent residual tim product ours not promote residual were control, for surrequent residual were control, follow a label-approved herbicide program, head and carriefly observe the cautomaxy statements and all other information appearing on the labels of all herbicides used.

Buyer and all uters are responsible for all loss or damage in connection with the use or handling of mixtures of this product with herbicides or other materials that are not expressly recommended in this labeling. Histing this product with herbicides of other materials not recommended on this babel may result in reduced performance.

for best results, spray coverage should be uniform and complete. Do not spray weed longe to the point of runoff.

DOMESTIC ANIMALS. This product is considered to be releavely nanuaxic to dogs and other domestic animals; however, ingestion of this product or large owner of partyl sheated askeranou was tarnet in remboard Sentanterinansurers or treating sprayed vegetation may result in temporary gattraintextu-nal irritation fromtong, diarrhea, cofic, etc.). It such symptoms are observed, provide the animal with plenty of fluids to prevent dehydration. Call a ret-erinarian if symptoms persist for more than 24 hours.

ATTENTION

AYOID DRIFT. EXTREME CARE MUST BE USED WHEN APPLYING THIS PRODUCT TO PASTERT INJURY TO DESIRABLE PLANTS AND CROPS.

Do not allow the herbicide solution to mist, drip, drift or splash onto desirable regretation since manufe quantities of this product can cause server ante regetation since minime quantities in this product tail again server damage or destruction to the crop, plants or other areas on which treatment was not intended. The likebhood of injury occurring from the use of ment was not intended, the intended of inquiry occurring work the are of this product is greatest when winds are gusty of in excess of 5 miles get hour or when other conditions, including lesser wind relocities, will allow

spray drift to occur. When spraying avoid combinations of pressure and nozale type that will result in sphatter or fine particles (mist) which are likely to drift. ATOID APPETING AT EXCESSIVE SPEED OR PRESSURE.

MOTE: Use of this product in any manner not consistent with this label may result in injury to persons, animals or trops, or other unintended consequences. Rep container closed to prevent spills and contamination.

MIXING, ADDITIVES AND APPLICATION INSTRUCTIONS

APPLY THESE SPRAY SOLUTIONS IN PROPERLY HAINTAINED AND CALIBRATED EQUIPMENT CAPABLE OF DELIVERING DESIRED VOLUMES. DO NOT APPLY WHEN WIND ON OTHER CONDITIONS PAYON DRIFT, HAND-GUN APPLICATIONS SHOULD BE PROPERLY DIRECTED TO AVOID SPRAYING DESIRABLE PLANTS. MOTE: REDUCED BLSULTS MAY OCCUR IF WATCH CONTAINING SOIL IS USED. SUCH AS WATER FROM PONDS AND UNLINED DITCHES.

MIXING

This product mixes readily with water. Hix spray solutions of this product as follows: Fill the mixing or soray rank with the required amount of water. Add the recommended amount of this product (see the "DIRECTIONS FOR USE" and "WREDS CONTROLLED" sections of this label) near the end of the filling process and mix well. Use caution to avoid siphoning back into the carrier source. Bse approved anti-back-siphoning devices where required by state or local regulations. During mixing and application, loaning of the spray solution may occur. To prevent or minimize loam, avoid the use of mechanical agitators, terminate by-past and return fines at the bottom of the tank and, if needed, use an approved anti-form or defoaming agent.

TANK MIXTURES

Always predetermine the compatibility of labeled tank mixtures of this prodact with water carries by mixing small proportional quantities in advance.

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- 1. Place a 20 to 35 smesh screen or weeting basket over filling porc
- 7. Through the screen, fill the spray tank one-hall holl with water and start
- 3. If a wettable provider is used, make a shurry with the water carrier, and add it Stowed through the screen into the cank Continue agration.
- 4. If a Rowable formulation is used, premix one part flowable with one part is a number commonature to users, preside one part command man one part water. Add differed mixture ROWAL through the screen into the tank
- 5. Il an emultifiable concentrate formariation is used, premia one part emulsifiable concentrate with two parts water. Add diluted mixture slowly through the screen into the tank Continue agitation.
- 6. Continue filling the spray tank with water and add the required amount of this product near the end of the filling process.
- 7. Where nonionic surfactant is recommended, add this to the spray tank before completing the filling process.
- 8. Add individual formulations to the spray tank as follows: we mable pow der, Rowable, emulsifiable concentrate, drift control additive, water soluble liquid followed by surfaceant

Maintain good agitation at all times until the contents of the rank are sprayed. If the spray marrore is allowed to settle, thorough agitation is sprayed. It the spear that the mixture before spraying is resumed.

Reep by pass line on or onar bornors of tank to minimize foaming. Screen size in northe or line strainers should be no finer than 50 mesh. Caretoly select proper nozzle to avoid spraying a fine mist for best results with conventional ground application equipment, use flat fan nozdes.

Clean sprayer and parts immediately after using this product by thoroughly Auching with water.

ADDITIVES

SURFACTANTS

Nonionic surfactants which are labeled for use with herbicides may be used. Do not reduce rates of this product when adding surfactant. When adding additional surfaceant, use 0.5 percent surfaceant controuration (1 quarts per 100 gallons of spray solution) when using surfactants which contain as least 10 percent active ingredient or a 1 percent surfactant concentration (4 quarts per 100 gallons of spray solution) for those surfactants containing less than 10 percent active ingredient. Read and carefully observe surfactant cautionary statements and other information appearing on the unfactant tabel

AMMONIUM SULFATE

The addition of 1 to 2 percent dry aramonium taffate by weight or 8.5 to 17 pounds per 100 gallons of water may increase the performance of this product, and this product plus 2.4-D, Bannel^{PM} or residual herbicide tank mixtures on annual and perennial weeds. The improvement in performance may be apparent where environmental stress is a concern. Low-quality arminoaisin sulface may contain material that will not readily dissolve, which could result in nozzle op plugging. To determine quality, perform a jau test by adding 1/3 cup of anymorium suffate to 1 gration of water and agitate for 1 If undissolved sediment is observed, predissolve the artimonium sulfate in wall and filter prior to addition to the spray tank. If ammonium sulfate is added directly to the spray tank, add slowly with agitation. Adding too quickly, may dog outlet line. Ensure that ammonium sulfate is completely dissolved in the spray tank before adding herbiddes or surfactant. Thoroughly rinse the source system with clean water after use to reduce corrosion.

NOTE: The use of ammonium sulface as an additive does not preclude the need for additional surfactant. Do not use harbicide rates lower than recommended in this label.

COLORANTS OR DYES

Agriculturally-approved colorants or marking dyes may be added to this product. Colorants or dyes cated in spray solutions of this product may reduce performance, especially at lower rates or dilutions. Use colorants or dies according to the manufacturer's recommendations.

APPLICATION EQUIPMENT AND TECHNIQUES

Do not apply this product through any type of irrigation system. This product may be applied with the following application equipment

Aerial - fixed Wing and Helicopter

Controlled Droplet Applicator (CDA)-Hand-held or boommounted applicators which produce a spray consisting of a narrow range of

Hand-Held and High-Volume Spray Equipment-Enapsack and backpack sprayers, pump-up pressure sprayers, handguns, handwands, misthlywers", lances and other hand-held and motorized spray equipment used to direct the spray onto weed folloge.

This product is not registered in California or Arizona for use in misthfowers. Selective equipment—Accirculating sprayers, shielded sprayers and wiper applicators.

See the appropriate part of this section for specific instructions and rates of application.

AERIAL EQUIPMENT

Use the recommended rates of this herbicide in 3 to 15 gallons of water per acre unless otherwise specified on this label. See the "WEEDS CON-TROLLED" section of this label for specific rates. Unless otherwise specified, do not exceed I quant per acre. Aerial applications of this product may be made in annual cropping conventional tillage systems, fallow and reduced tillage systems and preharvest applications. Refer to the individual use area sections of this label for recommended volumes and application rates. FOR AERIAL APPLICATION IN CALIFORNIA, REFER TO THE FEDERAL SUPPLEMENTAL LABEL FOR AERIAL APPLICATIONS IN THAT STATE FOR SPECIFIC INSTRUCTIONS, RESTRIC-TIONS AND REQUIREMENTS.

Avoid direct application to any body of water.

ANOID BRIFT. DO NOT APPLY DURING LOW-LEVEL INVERSION CONDITIONS. WHEN WINDS ARE GUST OR UNDER ANY OTHER CONDITION WHICH FAYORS DAILY. DRIFT MAY. CAUSE DAMAGE TO ANY PEGETATION CONTACTED TO WHICH DILATMENT IS NOT INTENDED. TO PREVENT INJURY TO ADJACENT DESIGNATION APPORTUNITY DE MAINTAINED. DESIRABLE REGETATION, APPROPRIATE BUFFER JONES MUST BE MAINTAINED.

Coarse sprays are less likely to drift therefore, do not use notales or notate configurations which dispense spray as fine spray droplets. Do not angle not-tles forward into the airtiteam and do not increase spray volume by

Orifi control additives may be used. When a drift control additive is used. read and carefully observe the Cambonary statements and all other information appearing on the additive label.

Ensure uniform application—to avoid irreated, uneven or over-tapped application, use appropriate marking devices.

Indicoughly wash aircraft especially tanding gear, after each day of spraying to remove residues of this product accumulated during spraying or from spile. PROLONGED EXPOSINE OF THIS PRODUCT TO UNCOATED STEEL SURFACES MAY RESULT IR CORROSION AND POSSIBLE FAILURE OF THE PART LANGUED CARD AND MOST CHIEFPYING TA PART. LANDING GEAR AND HOST SUSCEPTIBLE. The maintenance of an organic coating (paint), which meets aerospace specification. HIL-C-38413.

This product plus Oustin, Barnel or 2.4-D tank mixtures may not be applied by air in California.

BROADCAST EQUIPMENT

For control of annual or perennial weeds listed on For control of annual or perennial weeds listed on this label using broadcast equipment—the the recommended rates of this product in 3 to 40 gallons of water per acre at a broadcast part when otherwise specified on this label. See the WEGG LONTROLLED section of this label for specific rates. As deasity of weeks though the increased within the recommended cases. Charles the state of this laber for specific rates, as sensity of vector for entire the proper notice to recommended range in fine mill. For best results with ground application equipment, use flat has considered the results with ground application equipment, use flat has me use, so use crous not grade approximation distribution of spray droplets.

CONTROLLED DROPLET APPLICATION (CDA)

The rate of this product applied per acre by vehicle-mounted CDA equipment must not be less than the amount recommended in this label when applied by correctional broadcast equipment for rehide-mounted CDA equipment apply 3 to 15 gallons of water per acre.

for the control of labeled annual weeds with hand-held CDA units, apply a 20 percent solution of this product at 2 flow rate of 2 fluid ounces per to percent sourced of our product at a new late of a fund of the control minute and a walking speed of 1.5 MPH (I quart per acre), for the control of labeled percental weeds, apply a 10 to 40 percent solution of this product of the percentage of uct at a flow rate of ? fluid ounces per minute and a walking speed of 0.75 mph (2 to 4 quarts per acre).

Controlled droplet application equipment produces a spray pattern which is not easily visible. Extreme care must be exercised to avoid spray or drift contacting the lolinge or any other green tissue of desirable vegetation, as damage or destruction may result.

HAND-HELD and HIGH-YDLUME EQUIPMENT

Use coarse sprays only.

Hix this product in clean water and apply to foliage of vegetation to be convolled for applications made on a spray-to-set basis, spray coverage should be uniform and complete. Do not spray to the point of runoff.

for control of annual weeds listed on this tabel, apply a 0.5 percent solution of this product plus nonionic surfactant to weeds less than & inches in height of runner length. Apply prior to seedhead formation in grass or bud formation in broadless words. Allow three or more days before allage or moring.

for annual weeds over 6 taches talk or when not using additional surfactant. or unless otherwise specified, use a 1 percent solution for best results, use a 2 percent solution on harder-to-copural perennials, such as bermudagrass, dack, field bindwerd, hemp dogbane, milkweed and Canada thistle.

When using application methods which result in less than complete coverage. une a 5 percent solution for annual and perennial weeds and a 5 to 10 percent solution for woody brush and trees.

Prepare the desired volume of spray solution by mixing the amount of this product in water as shown in the following table:

Spray Solution

Desired			unweat of G	ylas		
Volume	1/2%	1%	1-1/1%	11/4	5%	(0%
l 6 <u>d</u>	1/3 az	1-1/3 oz	2 02	1-2/3 oz	6-1/2 oz	13 oz
25 Gad	l pt	f qt	1-1/2 gt	2 qt	S qt	10 qt
100 Gzl	2 qt	leg €	14/2 gal	2 gal	5 gal	10 ga

for use in knapsack sprayers, it is suggested that the recommended amount of this product be mixed with water in a larger container, fill sprayer with the mixed solution.

SELECTIVE EQUIPMENT

This product may be applied through a recirculating spray system, a shielded appliques, or a wiper applicator after dilution and thorough mixing with water to fisted weeds growing in any noncrop site specified on this label and only when specifically recommended in cropping systems.

- A recurrentating spray system directs the upray solution onto weeds growing above desirable regretation, while upray solution not intercepted by weeds is collected and returned to the spray tank for reuse.
- A shielded applicator directs the herbicide solution onto weeds, while shielding desirable regeration from the herbicide.
- A piper applicator applies the berbicide solution onto weeds by rubbing the weekd with an absorbent material containing the herbicide solution.

AYOLD CONTACT WITH DESIDABLE VEGETATION.

Egitact of the herbicide solution with the desirable regetation may result in depage or destruction. Application used above desired regetation should be adjusted to that the lowest spray stream or wiper contact point is at least 2 floches above the desirable regeration, Droplets, mist, foam, or splatter of the herbicide solution settling on desirable regetation may result in discoloration, stanting or destruction.

Applications made above the crops should be made when the weeds are a minimum of 6 inches above the desirable regeration. Better results may be obtained when more of the weed is exposed to the herbicide solution. Weeds not contacted by the herbicide solution will not be affected. This may occur in dense clumps, severe infestations or when the height of the weeds varies so that not all weeds are contacted. In these instances, repeat treatment may be necessary.

SHIELDED APPLICATORS

When applied as directed under conditions described for shielded applicators, this product will control those weeds listed in the "WEEDS CONTROLLED" section of this label.

Use the following equation to convert from a broadcast rate per acre to a band rate per acre,

Band width in inches Row width in inches	X	Herbicide Brozdczst RATE per acre	=	Herbicide Band RATE per acre
Band width in inches Row width	x	Broadcast O BRUION solution	=	Band VOLUME of solution
in inches		per acre		per acre

Use nozzles that provide uniform coverage within the treated area. Keep shields on shielded sprayers adjusted to protect desirable vegetation. EXTREME CARE MUST BE EXERCISED TO AVOID CONTACT WITH DESIRABLE

for specific rates of application and instructions for control of various annual and perennial weeds, see the "WEEDS CONTROLLED" section of this label.

WIPER APPLICATORS

Wiper applicators are devices that physically wipe appropriate amounts of this product directly onto the weed.

Equipment must be designed, maintained and operated to prevent the herbiode solution from contacting desirable regetation. Operate this equipment at ground speeds no greater than 5 mph. Performance may be improved by

reducing speed in areas of heavy weed infestations to ensure adequate wiper sauration. Better result may be obtained if 2 applications are made in

Avoid leakage or dripping onto desirable vegetation. Adjust height of applicaavoid rearrage of displing unto destrane regeration, adjust freight of applica-tor to entire adequate contact with weeds. Keep wiping surfaces clean. Be aware that, on sloping ground, the herbicide solution may migrate, tausing displace on the inner and and devine of the wirks on the unner and of a arrange trace, on soupong ground, the necessary southern may singular, causing drapping on the lower end and drying of the wicks on the upper end of a

Do not use wiper equipment when weeds are well

His only the amount of solution to be used during a 1-day period, as reduced activity may result from use of letturer solutions. Gean imper parts immediately after using this product by thoroughly flushing with water. Do not add surfactant to the herbicide solution.

For Rope or Sponge Wick Applicators—Mix I gallon of this product in 2 gallons of water to prepare a 33 percent solution. Apply this solution to weeds listed in this "WIPER APPLICATORS" section.

For Porous-Plastic Applicators—Solutions ranging from 33 to 100 percent of this product in water may be used in porous-plastic wiper

When applied as recommended under the canditions described for "WIPER APPLICATORS", this product CONTROLS the following weeds:

ANNUAL GRASSES

Corn Zea mays

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Rye, common Secule cereale

Panicum, Texas Panicum texanum

Shattercane Sorghum bicolor

ANNUAL BROADLEAVES

Sicklepod Carria obmisiblia

Scarbur, bristly Acanthospermum hispidum

Spanishneedles Bidens bipinnata

When applied as recommended under the conditions described for "WIPER APPLICATORS", this product SUPPRESSES the following weeds:

ANNUAL BROADLEAVES

Beggarweed, Florida Deumodium tortuosum

Ragweed, giant Ambrosia trifida

Dogfennel Eupatonium capilliflorium Sunflower Helianthus annous

Pigweed, redroot Amaranthus retroflexus

Thistle, musk Cardous nutars

Ragweed, common Ambrosia arremisidolia

Velvetleaf Abutilon theophrasis

PERENNIAL GRASSES

Bermudagrass Cymoden dactylon

Smutgrass Sporobokus poiretii

Guineagrass Радісим такітит Vaseygrass Paspalum urrillei

Johnsongrass Sorghum halepense

PERENNIAL BROADLEAVES

Dogbane, hemp Аросупит саплавінит Hightshade, silverleaf Solamum elacagnifolium

Milkweed Ascelepias syriaca Thistle, Canada Grains arress

WEEDS CONTROLLED

This herbicide controls many annual and perennial grasses and broadleaf

ANNUAL WEEDS

- Apply to actively growing grass and broadleaf weeds.
- · Allow at least 3 days after treatment before tillage.
- for maximum agronomic benefit, apply when weeds are 6 inches or less
- · To prevent seed production, applications should be made prior to seed-
- This product does not provide residual control; therefore, deby application unal maximum weed emergence. Repeat treatment may be necessary to control later germinating weeds.

LOW-YOLUME BROADCAST APPLICATION (LOW-RATE TECHNOLOGY)

When applied as directed under the conditions described, this product will control the weeds listed below when:

- 1. Water currier volumes of 3 to 10 gallons per acre for ground applicamanes carrier rooming on 5 to 10 Bautons per acre in ground apparentions and 3 to 5 gallons per acre for aerial applications are recommended. (See the "AERIAL APPLICATION" section of this label for
- 2. A contonic surfactant is added at 0.5 to 1 percent by total spray voltime. Use 0.1 percent surfactant concentration when using curfactants ome. Use 0.3 percent surractant concentration aroun caming surractants which contain at least 70 percent active ingredient or a 1 percent surfactant concentration for those surfactants containing less than 70 percent surractants.

NOTE

- The addition of 2 percent dry ammorium sulface by weight or 17 pounds per 100 gallons of water may increase the performance of this product on annual weeds. The improvement in performance may be apparent where environmental stress is a concern. Refer to the "MIXING, ADDITITES AND APPLICATION INSTRUCTIONS Action of this label.
- Do not conk-mix with soil residual herbicides when using these rates
- For weeds that have been moved, grazed or cut, allow regrowth to octur
- Refer to the TANK MULTURES portion of this section for control of addi-

WEED SPECIES	MUMIXAM \THQIBH HTQHBJ	RATE PER ACRE* (Ruid Ounces)	
Foxtail Setaria spp.	12"	8 oz.	_
Barnyardgrass Echinochloz crus-galli	6" (0 to 4" (4 to 6"	[] oz 6 oz } 24 oz]	_
Bluegrass, annual Poa annua			
Brome, downy** Bromus tectorum			-
Mustard, blue Chorispora tenella			
Mustard, tansy Descurzinia pinnata			
Mustard, tumble Sisymbrium altissimum Mustard, wild			
Sinapis arrensis Spurry, umbrella			
Kolosteum umbellatum Barley	12"		
Hordeum vulgare Rye			
Seczle cerezle Sandbur, field			
Cenchrus spp. Shattercane Sorghum bicolor			
Stinkgrass Eragrossis obanensis Wheat	<u> </u>	· 	
Intom ustram	18"		
Sickleand	1 7 T	16 oz	
Cassia obtusilotia Bluegrass, bulbous Poa bulbosa	6"		
Cheat Bromus sealinus			
hickweed, common			
hickweed, mouseear			ļ
Prn Prmays			;
atgrass, jointed gibps cylindrica			[
tundsel, common tio relgaris bit			٠.
ium amplexicable			•
eweed/Marestail a candensis squarters, common			
cress, field			
numers.			
		<u> 21</u>	

WEED SPECIES Rocket, London Sisymbrium irio Ryegrass, Italian Lolium multiflorum Shepherd's-purse (apsella bursa-pastoris Spurge, annual	MAXIMUM HEIGHT/ LENGTH	RATE PER ACRE* (Fluid Ounces)	-
Sisymbrium irio Ryegrass, Italian Lolium multiflorum Shepherd's-purse (apsella bursa-pastoris	6"	. 16 oz.	-
Lolium multiflorum Shepherd's-purse Capsella bursa-pastoris			
Capsella bursa-pastoris	ļ		
Spurge, annual	1		
Euphorbia spp.			
Buttercup Ranunculus spp. Cocklebur	12"		į
Zanthium stromanium Crabgrass			
Digitaria spp. Dwarfdandelion Krigia cespitosa	. }		
Faiseflax, smallseed Camelina mitrocapa			
Foxtail, Carolina Alopeurus carolinianus			40000
Johnsongrass, seedling Sorghum halepense	}		17
Oats, wild			
Panicum, fall Panicum dicholomiflorum	l		
Signalgrass, broadleaf Brathana playphylla Horseweed/Manageri	to 4" 4" 12"	24 02.	

WEED SPECIES	MAXIMUM HEIGHT/ LENGTH	RATE PER ACRE* (Fluid Ounces)
Pusley, Florida "Aichardia scabra	. 12"	31 oz
Sicklepod Cassia obtusifolia	5 to 12"	
Spanishneedles Bidens bipinnala		
Filaree Erodium spp.	12"	48 01.
Sprangletop Leptochloa spp.		

'Use these rates to control barmyardgrass in Alabama, Arkansas, Mississippi, Missouri, Louisiana and Texas for preplant treatments.

"For those rates less than 32 fluid ounces per acre, this product at rates up to 37 fluid ounces per acre may be used where heavy weed densities

"For control in no-till systems, use 16 fluid ounces per acre.

TANK MIXTURES

Glyfos plus BANVEL plus NONIONIC SURFACTANT

Glyfos plus 2,4-D plus NONIONIC SURFACTANT

DO NOT APPLY BANYEL OR 2,4-D TANK MIXTURES BY AIR IN CALIFORNIA.

These tank mixtures are recommended for use in fallow and reduced tillage areas only. Follow use directions as given in the "LOW-VOLUME BROADCAST APPLICATION" section.

This product plus Banvel or 2.4-0 will control the annual grasses and broadleal weeds listed for this product alone at the indicated heights (except or money were used for one product about at the money of neighbor (except 8 fluid ounces per acre applications), plus the following broadless weeds for those weeds previously littled at 8 fluid ounces of this product alone per acre, use 12 fluid ounces in these tank mintures.

NOTE: Refer to the specific product labels for crop rotation restrictions and cautionary statements of all products used in tank mixtures. Some crop injury may occur if Barnel is applied within 45 days of planting. The addition of Barriel in a mixture with this product may provide short-term residual control of selected weed species.

Apply 12 to 16 fluid ounces of this product plus 0.25 pound a.i. of Barwel or 0.5 pound a.i. of 2.4-0, plus 0.5 to 1 percent nonionic surfactant by total spray volume per acre to control dense populations of the following annual broadleaf weeds when less than the height indicated:

Cocklebur (127) ותבוחסים: muidum.

Morningglory (6") tpomoea spp.

Kochia* (6") Доснів корала

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Pigweed, redroot (12") Amaranthus retroflexus

Aambsquarters (12") Chenopodium album

Pigweed, smooth (12") Amaranthus hybridus

Lettuce, prickly (6") Lama semale

Thistle, Russian (12") lalsola kali

Marestail/Horseweed (6") Conyza canadensis

*Controlled with Barrel tank mixture only.

Apply 16 fluid ounces of this product plus 0.5 pound ai of 2.4-0, plus 0.5 Apply to note content on the product plus u.3 pound at of t.4-u, plus u.3 to I percent nonlinic surfactant by total spray volume per acre to control the following annual broadless when less than 6 inches in height

Ragweed, common Ambrosia artemisiifolia

Smartweed, Pennsylvania Polygonum pensylvanicum

Ragweed, giant Ambrojia trifida

Velvetleaf Abuulon uheophraso

HIGH-VOLUME BROADCAST APPLICATIONS

When applied as directed under the conditions described, this product will control the weeds listed below when water carrier volumes are 10 to 40 gallons per acre for ground applications.

Apply 1 to 1.5 quarts of this product per acre plus 0.5 to 5 percent non-ionic surfactant by total spray volume. Use 3 quart per acre if weeds are less than 6 inches call and 1.5 quarts per acre if weeds are over 6 inches tall if weeds have been moved, grazed or cut, allow adequate time for new growth to reach recommended stages prior to treatment. These rates will also provide control of weeds listed in the "LOW-YOLUME BROADCAST APPLI-CANON" section.

WEED SPECIES

Balsamapple* Momordica charantia Panicum Panitum 100.

Bassia, fivehook Bassia hyssopilolia

Ragweed, common Ambrosia externiciólolia

Brome Вготии грр. Ragweed, giant Ambrosia crific

Fiddleneck Ansinckia spp. Smartweed, Pennsylvania Polygonum pensylvanicum

Flexbane, hairy Conyra bonariensis

Sowthistle, annual Sanchus deraceur

Fleabane Erigerna spp. Sunflower Kelianthus annuus

Kochia Rochia scopania Thistle, Russian Sabata kali

Lettuce, prickly

Velvetleaf

Luciuca semola

Abution theophrasti

"Apply with hand-held equipment only.

PERENNIAL WEEDS

Apply this product as lollows to control or destroy most perennial weeds: MOTE: If weeds have been moved or tilled, do not treat until plants have resumed active growth and have reached the recommended stages.

Repeat treatments may be necessary to control needs regenerating from inspect orangeno may be increasely to common needs regenerating name underground parts or seed. Repeat treatments must be made prior to crop

The addition of 1 to 2 percent dry ammonium sollate by weight or 8.5 to 17 pounds per 100 gallons of water may increase the performance of this 11 pounds per two gations of water may increase the performance of two product on permanal weeds. The improvement in performance may be apparent where environmental tirets is a concern. Refer to the "MULING, ADDI-TIVES AND APPLICATION INSTRUCTIONS" section of this label.

When applied as recommended under the conditions described, this product WILL CONTROL the following PERENNIAL WEEDS:

Alfalfa

Medicago sativa

Alligatorweed*

Bindweed, field Complete supremo

Alternanthera philoxeroides

Bluegrass, Kentucky

Anise (fennel) Freniculum rulgare

Blueweed, Texas Heliandhur oliani

Art)choke, Jerusalem Helianshus arberasos

Brackenfern Presidium aquilinum

Bahiagrass מינובוסם הועלבקוב?

Bromegrass, smooth Bromus inermis

Bentgrass Agrosca spp.

Bursage, wooliyleaf franseria comenzosa

Bermudagrass Cynodon decryton

Canarygrass, reed Phalani arundinacea

Bermudagrass, water (knotgrass)

Cattail Турћа цер.

Paspalum distiction

Clover, red Intolium pratense Ciover, white Nutsedge; purple, yellow Cyperus remadus

(ypenus esculentus Orchardgrass Dactylis glomerata

Intalium repens Cogongrass Imperata edindrica

Pampasgrass Cortadena upp.

Dallisgrass Paspasum dilatarum Paragrass Brachiana mubica

Dandelion Taraacum officinale Dock, curly

Phragmites* Phragmites spp.

Rumes crisput Dogbane, hemp Аросупит салагаванит Poison hemlock Consum matulatum

Fescues festura spp. Опаскатаза Agropyron repens

Fescue, tall festura arundinacea Redvine* Brunnichia ovala

Guineagrass

Reed, giant Pringe doug

Pandum maximum

Ryegrass, perennial

Horsenettle Solanem carolinense

Lolium perenne Smartweed, swamp

Horseradish America rospona

Polygonum coccineum Spurge, leafy*

ice plant Beneditangenin aleginin Euphorbia esula

Starthistle, yellow Centaurea solstitalis

johnsongrass Sorghum halepense

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Sweet potato, wild+ ipomota panderata

Kikuyugrass Penniserum dandertinum

Knapweed Centaurea regens Thistle, Canada Cirsium arvense

Lаптала lantana camara Thistle, artichoke Eynava cardonoulus

Lespedeza Lespedeza spp. Timothy Pileum graterue

Milkweed Audepias spp. Torpedograss* Panicum repens

Muhly, wirestem Huhlenbergia trondonsa Trumpetczzeper* Campsis radicans

Mullein, common Yerbascum shapsus

Vaseygrass Parpalum urvillei

Napiergrass

Yelvetgrass

Репліветьм ригритеам Hightshade, silverleaf

Wheatgrass, western Agropyron smithii

Solanum elacagnilotium Partial Control

This product is not registered in California for use on water benaudagrass. See "DIRECTIONS FOR USE" and "MIXING, ADDITIVES AND APPLICATION INSTRUCTIONS" sections of this label for labeled uses and specific application

Alfalfa—Apply I quart of this product per acre plus 0.5 to I percent nonionic surfaceant by total spray volume in 3 to 10 gallons of water per acre. Make application after the last hay curting in the fall. Allow alfalls to regrow to a height of 6 to 8 inches or more prior to treatment. Applications should be followed with deep tillage at least 7 days after treatment has been dead of the second of the seco ment, but before wil breze-up.

Alligazorweed hpply 4 quarts of this product per acre or apply a 1.5 percent solution with hand-held equipment to growide partial control. Apply when thest of the plants are in bloom. Repeat applications will be required to majurain sum control.

Anise (fennel) / Poison hemtock—Apply a i to I percent solution of this product as a spray-to-wet treatment. Optimum results are obtained when plants are created at the bud to full-bloom stage of growth. Repeat applications may be needed in succeeding years to control plants arising from seeds.

Benetgrass—for suppression in grass seed production areas, for ground applications only, apply 1.5 quarts of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 10 to 20 gallons of water per acre. Insure entire crown area has resumed growth prior to a fall application. Benegrass should be actively growing, and have at least 3 inches of growth. Fillage prior to treatment should be avoided. Fillage 7 to 10 days after application is recommended for best results. Failure to use tillage after treatment may result in unacceptable control.

Bermudagrass—for control, apply 5 quarts of this product per acre. for partial control, apply 3 quarts per acre. Ireat when bermudagrass is actively growing and seedheads are present. Recreatment may be necessary to maintain control. Allow 7, or more days after application before tillage.

Bermudagrass, water (knotgrass)—Apply 1.5 quarts of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 5 to 10 gallons of water per acre. Apply when water bermudagrass is actively growing and 12 to 18 inches in length. Allow 7 or more days before cilling, flushing or flooding the field.

Fall applications only—Apply 1 quart of this product plus 0.5 to 8 percent nonionic surfactant by total sprzy volume in 5 to 80 gallons of water per acre. Fallow fields should be tilled prior to application. Apply prior to frost on water bermudagrass that is actively growing and 12 to 18 inches in length. Allow 7 or more days before tillage.

Birnchweed, Field—for control, apply 4 to 5 quarts of this product per acre west of the Mississippi River and 3 to 4 quarts east of the Mississippi River. Apply when the weeds are actively growing and are at or beyond hull bloom. Do not treat when weed is under drought stress as good soil moisture is necessary for active growth. For best results, apply in late summer or fall. Fall meatments must be applied before a killing frost. Allow 7 or more days after application before tillage.

Also for control, apply 2 quarts of this product plus 0.5 pound a.i. of Banvel in 10 to 20 gallons of water per acre. At these rates, apply using ground application only.

The following tank mixtures with 2.4-D may be applied using aerial application equipment (except in California) in fallow and reduced bilage systems only. For suppression on irrigated agricultural land, apply 1 to 2 quarts of this product plus 1 pound at of 2.4-D in 10 to 20 gallons of water per acre with ground equipment only. Applications should be made following harvest or in fall fallow ground when the bindweed is actively growing and the majority of runners are 12 inches or more in length. The use of at least one irrigation will promote active hindweed growth.

for suppression, apply 16 fluid ounces of this product plus 0.5 pound al. of 1,4-0 plus 0.5 to 1 pertent nonionic surfaceant by total spray volume in 3 to 10 gallons of water per acre for ground applications and 3 to 5 gallons of water per acre for aerial applications. Applications should be delayed until maximum energence has occurred and when vines are between 6 to 18 inches in length.

In California only, apply 1 to 5 quarts of this product per acre.

Actual rate needed for suppression or control will vary within this range
depending on local conditions.

for suppression on irrigated land where annual tillage is performed, apply 1 of quart of this product plus 0.5 to 1 percent nominaic surfactant by total spray volume in 3 to 10 gallous of water per acre. Apply to actively growning bindweed that has reached a heagth of 12 inches or greater. Allow maximum weed emergence and runner growth. Do not treat when weeds are under drought stress as good soil moisture is necessary for active growth. Allow 3 or more days after application before oiltage.

Bluegrass, Kentucky / Bromegrass, smooth / Orchardgrass-Apply 2 quart of this product in 10 to 40 gallons of water per
acre when the grasses are actively growing and most plans here reached
boot-to-early seedhead stage of development, for partial control in pattern
or hay crop renovation, apply 1 to 15 quarts of this product plan 0.5 to 1
percent nonionic surfactant by total spray volume in 3 to 10 gallons of
water per acre, Apply to activaly growing plants when most have reached 4
to 12 inches in height Allow 3 or more days after application before tillage.

Orchardgrass (sods going to no-till corn)—Apply I to I.5 quarts of the product per acre plus 0.5 to I pertent conionic surfactant by total spray wheme in 3 to 10 gallons of water per acre. Apply to orchardgrass that is a minimum of 12 inches tall for spring applications and

before planting. A sequential application of attazing minoptimum results.

Blueweed, Texas—Apply 4 to 5 quarts of this product per acre west of the Mississippi River and 3 to 4 quarts per acre east of the Mississippi River. Apply when weed is actively growing and is at or beyond full bloom. Do not treat when weed is under drought stress as good soil moistime is necessary for active growth. New leaf development indicates active growth. For best results, apply in late summer or fall. Fall treatments must be applied before a killing host. Allow 7 or more days after application before tillage.

Brackenfern—Apply 3 to 4 quarts of this product per acre as a broadcast spray or as a 1 to 1.5 percent solution with hand-held broadcast spray or as a 1 to 1.5 percent solution with hand-held broadcast spray or as a 1 to 1.5 percent solution with hand-held broadcast spray or as a 1 to 1.5 percent solution with hand-held broadcast spray or as a 1 to 1.5 percent solution.

Bursage, woollyleas—for control apply 2 quarts of this product plus I pint of Barnel per acre. for partial control, apply 1 quart of this product plus I pint of Barnel per acre. Add 0.5 to 1 percent nonionic surfactant by plus I pint of Barnel per acre. Add 0.5 to 10 gallons of water per acre. Apply total spray volume and apply in 3 to 20 gallons of water per acre. Apply when plants are producing new acrore growth which has been initiated by when plants are producing new acrore growth which has been initiated by moisture for at least 2 weeks and when plants are at or beyond flowering.

Canarygrass, reed / Timothy / Wheatgrass, western-Apply 2 to 3 quart of this product per acre. for best results, apply to actively growing plants when most have reached the boot-to-head stage of growth Allow I or more days after application before tillage.

Cogongrass—Apply 3 to 5 quarts of this product plus 0.5 to 1 percent nonionic surfaceant in 10 to 40 gallons of water per acre. Apply when Cogongrass is at least 18 inches tall and actively growing in late summer or fail. Allow 7 or more days after application before tillage or moving. Due to fail. Allow 8 or more days after application before tillage or moving good uneven stages of growth and the dense nature of vegetation percenting good uneven stages of growth and the dense nature of vegetation or maintain courtol.

Dandelion / Dock, curly—Apply 3 to 5 quarts of this product per acre when plants are actively growing and most have reached the early bud stage of growth. Allow J or more days after application before tillage.

Also for control, apply 16 fluid ounces of this product plus 0.5 pound a.i. 2.4-D plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre.

Dogbane, hemp—Apply 4 quarts of this product per acre. Apply when actively growing and when most weeds have reached the late bud to flower stage of growth, following crop harvest or moving, allow weeds to regrow to a mature stage prior to treatment, for best results, apply in late summer or fall. Allow 7 or more days after application before tillage.

for suppression, apply 16 fluid ounces of this product plus 0.5 pound a.i. of 2.4-0 plus 0.5 to 1 percent nonionic surfaceant by total spray volume in 3 to 10 gallons of water per acre for ground applications and 3 to 5 gallons of water per acre for aerial applications. Delay applications until maximum emergence of dopbase has occurred.

Fescure, tail—Apply 3 quarts of this product in 10 to 40 gallons of water per acre to actively growing plants when must have reached boot-to-early seedhead stage of development.

fall applications only—Apply I quart of this product plus 0.5 to 1 percent nonionic surfaceant by total spray volume in 3 to 10 gallons of water per acre. Apply to fescue in the fall when actively growing and plants have 6 to 12 inches of new growth. Allow J or more days after application before tillage. A sequential application of 1 pint per acre of this product plus nonionic surfaceant will improve long-term control and control seedlings germinating after fall treatments or the following spring.

Guineagrass Apply 3 quarts of this product per acre or use a 1 percent solution with hand-held equipment. Apply to actively growing guineagrass when most has reached at least the 7-leaf stage of growth. Ensure thorough coverage when using hand-held equipment. Allow 7 or more days after application before tillage.

Johnsongrass / Ryegrass, perennial—Apply 1 to 3 quarts of this product per acre. In annual cropping systems apply 1 to 2 quarts of this product per acre. Apply 1 quart of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. Use 2 quarts of this product when applying 10 to 40 gallons of water per acre. In noncrop, or areas where annual tillage (no-till) is not performed, apply 2 to 3 quarts of this product in 10 to 40 gallons of water per acre. In the second of the per acre. In the second of the performed apply 2 to 3 quarts of this product in 10 to 40 gallons of water per acre. For best results, apply to acrively growing plants when most have reached the boot-to-head stage of growth or in the fall prior to frost. Allow 3 or more days after application before tillage. Do not tank-mix with residual herbicides when using the 1 quart per acre rate.

Spot treatment (partial control or suppression)—Apply a 1 percent solution of this product plus 0.5 to 1 percent nonronic surfactant by total spray volume when Johnsongrass is \$2 to 18 inches in height Coverage should be uniform and complete.

Kikuyugrasa - Apply 2 to 3 quarts of this product per acre. Spray when most histophygras is at least 8 inches in height (3- or 4-leaf stage of growth) and actively growing. Mlow 3, or more days after application before tillage.

Knapweed ! Horseradish—Apply 4 quarts of this product per acre. Apply when actively growing and when most weeds have reached the late bod to flower stage of growth. Following crup harvest or moving, allow weeds to region to a mature stage prior to treatment for best results, apply weeds to region to a mature stage prior to treatment for best results, apply in late summer or fall. Allow ? or more days after application before tillage.

Lantaria - Apply this product as a i to 3.25 percent solution using hand-held equipment only. Apply to actively growing lantane at or beyond the bloom stage of growth. Use the higher application rate for plants that have matched the woody stage of growth. Allow 7 or more days after application before tiliage.

Milkweed, common—Apply 3 quarts of this produce per aut. Apply when actively growing and most of the milkweed has reached the late bud to flower stage of growth. following small grain harvest or mowing, allow milkweed to regrow to a mature stage prior to treatment. Allow 1 or more days after application before tillage.

Multily, wirestern—Apply 1 to 2 quarts of shis product per acre. Use 1 quart of this product plus 9.5 to 1 percent nomionic surfactant by total spray volume in 3 to 10 gallons of water per acre. Use 2 quarts of this product when applying 10 to 40 gallons of water per acre or in passure, tod. or noncrop areas. Spray when the wirestern multip is 8 inches or more in height and actively growing. Do not till between harvest and fall applications or in the fall or spring prior to spring applications. Allow 3 or more days after application to the product will not provide residual days after application to this product. Do not tank mix with residual herbicides when using the 1 quart per acre rate.

Mightshade, silverleaf—for control apply 2 quarts of this product plus 0.5 to 1 percent noniomic surfaceant by total spray volume in 3 to 10 gallons of water per acre. Applications should be made when at least 60 percent of the plants have betties. Fall treatments must be applied before a killing frost Allow 7 or more days after application before tilkage. Do not treat when weed is under drought stress as good soil moisture is necessary for active growth.

Nutsedge; purple, yellow—Apply 3 quarts of this product per acre as a broadcast spray, or apply a 1 to 2 percent solution from handheld equipment to control existing nutsedge plants and immature nutless artached to treated plants. Iteat when plants are in flower or when new nutless can be found at thisome tips, fluidess which have not germinated will not be controlled and may germinate following treatment. Repeat treatments will be required for long-term control of ungerminated tubers.

Sequential applications of 1 to 2 quarts of this product plus 0.5 to 5 percent contonic surfactant by total spray volume in 3 to 10 gallons of water per acre will provide control. Make applications when a majority of the plants are in the 3- to 5-leaf stage (less than 6 inthes tail). Repeat this application, as necessary, when newly emerging plants reach the 3- to 5-leaf stage. Subsequent applications will be necessary for long-term control.

For suppression to partial control of existing plants, apply 1 pint to 2 quarts of this product per acre, plus 0.5 to 1 percent nonionic surfactant in 3 to 40 gallors of water per acre. Itrait when plants have 3 to 5 leaves and most are less than 6 inches tall. Repeat treatments will be required to control subsequent emerging plants or regression of existing plants. Whit 7 days after treatment before tillage or moving.

Pampasgrass / Ice plant—Apply this product as a 1.5 to 2 percent solution using hand-hald equipment. Apply to plants that are actively growing. Pampasgrass should be at or beyond the boot stage of growth. Thorough coverage is necessary for best control.

Phragmrites—for partial control of phragmites in Florida and the counties of other states bordering the Guil of Mexico, apply 5 quarts per acre to a broadcast apray or apply a 2 percent solution from hand-held equipment. In other areas of the U.S. apply 3 quarts per acre as a broadcast apray or apply a 1 percent tolution from hand-held equipment for partial control. For best results, treat during late summer or fall months or

when plants are actively growing and in toll bloom. Ireatment before or after this stage may lead to reduced control. Due so the dense nature of the regetation, which may prevent good spray coverage or oneren stages of growth repetat treatments may be necessary to maintain control. Visual control symptoms will be slow to develop.

Quackgrass—In Annual Cropping Systems, or in Pastures and Sods Followed by Deep Tillage: Apply 1 to 2 quare of this product set acre, for the 1 quart rate, apply 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallots of water per acre, for the 2 quart rate, apply in 10 to 40 gallots of water per acre, bo not tank mix with residual herbicides when using the 1 quart rate. Spray when quackgrass it 6 to 8 inches in beight and actively growing. Do not till between harvest and fall applications or in fall or spring prior to spring application. Allow 3 or more days after application before sillage, in pastures or soch, for best results use a moldboard plow.

Quackgrass—Pasture or Sod or Other Noncrop Areas Where Deep Tillage is Not Planned Following Application: Apply 1 to 3 quarts in 10 to 40 galoos of water per zere. Spray when the quackgrass is greater than 8 inchet tall and actively growing. Do not till between harvest and fall application or in fall or spring prior to spring application. Allow 3 or more days after application before tillage.

Redvirue—For suppression, apply 24 fluid ounces of this product per acre at each of two applications I to 14 days apart or a single application of I quarts per acre. Apply recommended rates in 5 to 10 gations of water per acre plus 0.5 to 1 percent continuit surfaceant by total volume. Apply in late September or early October to actively growing plants, which are at least 18 inches tall and have been growing 45 to 60 days since the last tiltage operation. Make applications at least 18 week before a billing frost.

Reed, giant.—for tontrol of giant reed, apply a 2 percent solution of this product when plants are actively growing. Best results are obtained when applications are made in late summer to fall.

Smartweed, swamp—Apply 3 to 5 quarts of this product per acre when plants are actively growing and most have reached the early bud stage of growth. Allow 1 or more days after application before titlage.

Also for control, apply 16 fluid ounces of this product plus 0.5 pound active ingredient of 2.4-B plus 0.5 to 1 percent nonionic surfactant by total volume in 3 to 10 gallons of water per, acre in the late summer or fall, Apply of growth Allow 1 or more days after application before tillage.

Source, least-

Spurge, leafy—for suppression, apply 16 fluid ounces of this product plus 0.5 pound active ingredient 2.4-0 plus 0.5 to 1 percent nomining surface to the summer or full. Apply when plants are actively growing if moving has actil Allow 1 or more days after application before tillage.

Starthistle, yellow—Best results are obtained when applications are made during periods of active growth, including the rotette, belong and early flower stages, for spray-to-wer applications, apply this product as a 1 to 40 gallons per acre of water carrier.

Sweet Potato, wild f Thistle, artichoke—Apph this product as a 2 persons solution using hand-held equipment. Apply to actively growing weeds that are at or beyond the bloom stage of growth. Repeat applications may be required. Allow the plant to reach the recommended stage of growth before retreatment. Allow I or more days before ullage.

Thictele Containing the plant to more days before ullage.

Thistie, Canada—Apply 2 to 3 quarts of this product per aure. Apply to actively growing thistles when most are at or beyond the bud stage of least 4 weeks for invitation of active growth and resente development prior to the application of this product. fall treatments must be applied before a killing frost. Allow 3 or more days after application before tillage.

for suppression of Canada thistle, apply I quart per acre of this product, or I pint of this product plus 0.5 pound at 2.4-0 per acre, plus 0.5 to I pertent nominic surfaceant by total upray rolume in 3 to 10 gallons of oilage. Allow meeter to the late summer or fall after harvest, moving on the stage. Allow meeter regrowth to a minimum of 6 inches in diameter before treating. Applications can be made as long as leaves are still green and plants are actively growing at the time of application. Allow 3 or more days after application before tillage.

Torpedograss Apply 4 to 5 quarts of this product per acre to proride partial control of torpedograss. Apply to actively growing torpedograss when most plants are at or beyond the seedhead stage of growth, Repeat applications will be required to maintain control. fall treatments must be applied before frost Allow 7 or more days after application before tillage.

Trumpetcreeper—for control, apply 2 quarts of this product per acre in 5 to 10 gailons of water per acre. Apply to actively growing plants in late september or October, which are at least 18 inches tail and have been growing 45 to 60 days since the last tillage operation. Make applications at least I week before a killing frost.

Other perennials listed on this label—Apply 3 to 5 quarts of this product per acre. Apply when actively growing and most have reached early head or early bud stage of growth. Allow 7 or more days after application before tillage.

WOODY BRUSH AND TREES

When applied as recommended under the conditions described, this product rines applied as recommissioned under the continuous destroyed, and product COMTROLS of PARTIALLY CONTROLS the following woody brush, plants and trees:

Alnus spp.

Ash*

Frazinus spp.

Aspen, quaking Populus tremulaides

Bearmat (Bearclover)

Chamaebatia lobolosa

Beech Fagus grandifolia

Birch Bemla spp.

Blackberry

Rubus spp. Blackgum Нума цер.

Bracken Peridium spp.

Öroom:

French Cytisus monsperudanus

Scotch (prisos scoparios

Buckwheat, California* Enogonum buciculatum

Cascara* Rhammus purchiana

Catsclaw* Acacia greggi

Ceanothus* Ceanorthus spp.

Chamise

Adenostoma fauciculatum Cherry:

Bitter

Promos emarginata Black

Prunun seratina

Pin

Pronus pensylvanica Coyote brush Bartharis contanguinea

Creeper, Virginia* Parthenocissus quinquefolia

Dewberry Robus provides

Dogwood* Count rbb

Elderberry Tids smoothers

Eim* Ulmus spp. Eucalyptus Eucalyptus spp.

Gorse

Diex europaeus

Hasardia* Haplopappus squamosus

Hawthorn Crataegus spp.

Hazel Corytus spp. Hickory* Carya spp.

Holly, Floridal

Brazilian Peppertree*

Honeysuckle Lonicera spp.

Hornbeam, American* Сагріпш сагобліала

Kudzu Pueraria lobata

Locust, black* Robinia pseudoacacia

Madrone Arbutus menziesii Manzanita

Arctostaphylos spp. Maple:

Red** Acer robnim Sugar

Acer saccharum Vine* Acer circinatum

Monkey Flower* Minimum Entrains

Oak:

Black* Quertus velutina Northern Pin Quertus palustris

Post Quercus stellata

Red

Querous nabra Southern Red Querou blata

White* Queron alba Persimmon* Diaspугот грр.

Pine Pieus 199

Poison lvy Rhus radicans

Poison Oak Rimus (aziendendian

Poplar, yellow* Uriodendron religitera

Raspberry Robus 199.

Redbud, eastern Ceros canadensis

Rose, multiflora Rosatium troff

Russian-olive Elzezgnus angustifolia

Sage; black, white Sahia spp. Sagebrush, California

Artemisia californica Salmonberry

Rubus spectabilis Sait Cedar

Tamanas sop

Sassalras Susulrus aibidem

Sourwood Oxydendrum arboreum

Partial control

""See below for constal or partial control instructions.

Sumac:

Poison* Khus vernix

Smooth* Rhus glabra

Winged* Ahus copallina

Sweetgum Pidnigampat sidiscilins

Swordfern* Polystichum munitem

Tallowtree, Chinese Sapium sebilerum

Tan Oak Lithocarpus densiflorus

Thimbleberry

Rubus parviflorus Tobacco, tree* Nicotiana glanca

Trumpetcreeper (ampsis radicans

Waxmyrtle, southern* Nynca ceritera

Willow Lafix spp.

NOTE: If brush has been moved or tilled or trees have been cut, do not treat until regrowth has reached the recommended stages of growth.

Apply this product when plants are actively growing and, unless otherwise directed, after full leaf expansion. Use the higher rate for larger plants and/or dense areas of growth. On vines, use the higher rate for plants that have reached the woody stage of growth. Best results are obtained when application is made in late summer or fall after fruit formation.

In arid areas, best results are obtained when application is made in the spring to early summer when brush species are at high moissure content and are flowering.

Ensure thorough coverage when using hand-held equipment Symptoms may not appear prior to tross or senescence with fall treatments.

Allow I or more days after application before tillage, mowing or removal. Repeat treatments may be necessary to control plants regenerating from underground parts or seed. Some autumn colors on undesirable decidu-ous species are acceptable provided no major leaf drop has occurred. Reduced performance may result if fall treatments are made following a frost

See "DIRECTIONS FOR USE" and "MIXING, ADDITIVES and APPLICATION INSTRUCTIONS" sections of this label for labeled uses and specific application

Apply this product as follows to control or partially control the following woody brush and trees.

Alder / Dewberry / Honeysuckle / Post Oak / Rasphervy—for control, apply 3 to 4 quarts per acre of this product at a broadcast spray or as a 1 to 1.5 percent solution with hand-held

Aspen, quaking / Cherry: bitter, black, pin / Hawthorn / Oak, southern red / Sweetgum / Trumpetcreeper----or control apply 2 to 3 quarts of this product per acre as a broadcast spray or as a 1 to 1.5 percent solution with band-held equipment.

Birch / Elderberry / Hazet / Salmonberry / Thimbleberry-for control, apply 2 quarts per acre of this product 21 2 broadcast spray of as a 1 percent solution with hand-held equipment.

Blackberry—for control, apply 3 to 4 quarts per acre of this product as a broadcast spray, or 1 to 1.5 percent solution with hand-held equipment. Make application after plants have reached full leaf maturity. Best results are obtained when applications are made in late summer or full. After berries have set or drapped in late full, blackberry can be controlled by applying a 3/4 percent solution of this product plus 0.5 to 1 percent nonitonic surfactant by total spray volume with hand-held equipment for control of blackberries after leaf drop and until killing frost or as long as stems are green, apply 3 to 4 quarts of this product in 10 to 40 gallons of water per acre.

Broom: French, Scotch—for control apply a 1.5 to 2 percent solution with hand-held equipment

Buckwheat, California / Hasardia / Monkey Flower / Tobacco, tree—for partial control of these species, apply a 1 to 2 percent solution of this product as a foliar spray with band-held equipment. Thorough coverage of foliage is necessary for best results.

Catsclaw—for partial control, apply as a 1 to 1.5 percent solution with hand-held equipment.

Coyote Brush—for, control, apply a 1.5 to 2 percent solution with hand-held equipment when at least 50 percent of the new leaves are fully developed.

Eucalyptus—for control of euchyptus resprouts, apply a 2 percent solution of this product with hand-held equipment when resprouts are 6 to 12 feet tall. Ensure complete coverage, Apply when plants are growing actively, Avoid application to drought-stressed plants.

Kuclzu—For control, apply 4 quarts of this product per acre as a broadcast spray or as a 2 percent solution with hand-held equipment. Repeat applications will be required to maintain control.

Madrone resprouts—for suppression or partial control, apply a 2 percent solution of this product to resprouts less than 3 to 6 feet tail. Best results are obtained with spring/early summer treatments.

Maple, red—for control, apply as a 1 to 1.5 percent solution with hand-held equipment when at least 50 percent of the new leaves are felly developed. For partial control, apply 2 to 4 quarts of this product per acre as a broadcast spray.

apply as a 1 to 1.5 percent solution with hand-held equipment when at Posicion of the new leaves are fully developed.

Poison Ivy / Poison Dak—for control, apply 4 to 5 quarts of this product per are as a broadcast spray or as a 2 percent solution with hand-control fall treatments must be applied before leaves lose green color.

Rose — steed

Rose, multiflora—for control apply I quarts of this product per acre as a broadcast spray or as a 1 percent solution with hand-held equipment. Irrestments should be made prior to leaf deterioration by leaf-feeding

Sage, black / Sagebrush, California / Chamise / Tallowtree, Chinese for control of these species, apply a 1 percent solution of this product as a foliar spray with hand-held quipment. Thorough coverage of foliage is necessary for best results.

Tan oak resprouts—for suppression or partial control, apply a 2 results not solution of this product to resprouts less than 3 to 6 feet tall Best results are obtained with tall applications.

Willow—for control apply 3 quarts of this product per acre as a Ochor Wants of a percent solution with hand-held equipment.

Other Woody Brush and Trees listed on this label—for spray or as 2 i to 2 percent solution with hand-held equipment.

NONCROP USES

See "GENERAL INFORMATION" and "MIXING, ADDITIVES AND APPLICATION INSTRUCTIONS" sections of this label for essential product performance information and the following "NONCROP" sections for specific recommended uses.

EXTREME CARE MUST BE EXERCISED TO ANDID CONTACT OF SPRAY WITH DESIRABLE TUNIGRASSES, TRUES, SHRUBS ON OTHER DESIRABLE TUNIGRASSES, TRUES, SHRUBS ON OTHER DESIRABLE VEGETATION WAS SEVERE CAMAGE ON DESTRUCTION MAY RESULT.

Repeat treatments may be necessary to control weeds regenerating from underground parts or seeds.

Where repeat applications are necessary, do not exceed 10.6 quarts of this

This product does not provide residual weed control for subsequent weed product per aute per year. control, follow a label-approved herbicide program.

Read and carefully observe the causionary statements and all other information appearing on the labels of all herbitides used.

INDUSTRIAL, RECREATIONAL AND PUBLIC AREAS

When applied as directed for "NONCROP USES", under conditions described, this product controls annual and personal weeds fisted on this label growing inis product controls annual and perential weeds instead on this later growns, in areas such as airports, direct banks, dry ditches, dry canals, fencerows, golf courses, highways, industrial plant sites, humberfards, partong areas, golf courses, tughways, moustrial plant sites, tulnuerjatus, persong areas, parts, personem tank larms and pumping installations, pipelines, power and telephone rights-of-way, railroads, roadsides, schools, storage areas, tilling telephone rights-of-way, railroads, roadsides, schools, storage areas, tilling telephone rights-of-way. energiume hights-of-way, ramodus, rusquides, sendon, storage areas, substations, other public areas and similar industrial or noncrop areas.

for specific rates of application and instructions for control of various annual and perential weed and woody brush and trees, see the "WEEDS CON-

This produce may be applied with recirculating sprayers, shielded applicators, or TROLLED" section of this label. min product may be appared what reactivisting sprayers, succeed approcasors, or wiper applicators in any concrop site specified on this label. See the Selective Equipment part of -APPLICATION EQUIPMENT AND TECHNIQUES section of this tabel for information on proper use and calibration of this equipment.

TANK MIXTURES FOR INDUSTRIAL SITES AND FORESTRY SITE PREPARATIONS

Glyfos plus OUST

Use on industrial sites including airports, industrial plants, humberyards, petroleum tank farms, pumping stations, pipelines, failroads, roadsides, storage areas or other similar sites where bare ground is desired.

This tank mixture may also be used as a site preparation treatment for sites tons came musture may also be used as a life preparation resulting in the planted to jack pine, lobloby pine, red pine, stash pine and Yirginia

When applied as directed for "NONCROP USES" under the conditions described, this product plus Oust provides control of annual weeds listed in the "WEEDS CONTROLLED" section of the label for this product and Oust, and control or partial control of the perennial weeds listed below.

Apply 1 to 2 quarts of this product with 2 to 4 ounces of Oust in 10 to 40 gallons of spray solution per acre as a broadcast spray to actively growing weeds.

This mixture may be applied by aerial equipment in site prep operations. When applied by air, use the recommended rates in 5 to 15 gallons of spray solution per 20re.

This product plus Oust rank mixtures may not be applied by air in (alifornia

for control of annual weeds, use the lower rates of these products.

for control of the fisted perennial weeds, use the higher rates of both products, for partial control, use the lower rates.

Bahiagrass

Paspalum notatem

johnsongrass** korghum halepense

Bermudagrass*

Posrjoe**

Cynoden dactylon

Broomsedge Andropogon virginicus Quackgrass Agropyron repens

Dock, curly Rumex crispus Trumpetereeper* Campsis radicans

Dogfennel Eupatorium capilliforium Vaseygrass Paspatum errillei

Fescue, tall Festuca arundinacea Vervain, blue Yerbena hastata

"Suppression at the higher rates only.

"Control at the lower rates.

Read and carefully observe the cautionary statements and all other information appearing on the labels of all herbindes used.

TANK MIXTURES NONCROP SITES

When applied as a tank mixture, this product provides control of the emerged annual weeds and partial control of the emerged perennial weeds listed in this label. When applied as a tank mixture, the following residual herbicides will provide preemergence control of the weeds listed in the individual product labels.

Glyfos plus DiuRONTH Glyfos plus KROYARTM I Glyfos plus KROYAR II Glyfos plus RONSTARTM 50WP Glyfos plus SIMAZINE, PRINCEP CALIBERTH 90 Glyfos plus SIMAZINE 4L Glyfos plus SIMAZINE BOW Glyfos plus SURFLANTM 75W Glyfos plus SURFLAN AS

When tank mixing with residual herbicides, add an agriculturally approved numen tank minking with residual neroscotes, and an agriculturary application indicate surfaceant at 0.5 to | percent by volume of spray solution, see the "MIXING, ADDITIVES AND APPLICATION INSTRUCTIONS" section of this label before preparing these tank mixtures.

Read and carefully observe the label claims, cautionary statements, recommended use rates and all other information on the labels of all products menues use rates and an outer minimum of the most restrictive label the in these lank minimumes. Use according to the most restrictive label directions for each product in the mixture.

CONTROL OF EMERGED WEEDS

Note: for backpack sprayer and handgun applications, see the "HAND-HELD AND HIGH-YOLLIME EQUIPMENT" section for recommended rates.

Annual Weeds Apply I quart per acre of this product in these tank mixtures when weeds are less than 6 inches tall and 1.5 quarts per acre when weeds are more than 6 inches tall.

Perennial Weeds--for partial control of perennial wreck using these tank mixtures, apply 2 to 5 quarts per acre of this product. Follow the recommendations in the "WEEDS CONTROLLED" section of this label for stage of growth and rare of application for specific perennial weeds.

PREEMERGENCE WEED CONTROL

For preemergence weed control, refer to the individual product labels for specific noncrop sites, rates, carrier volumes and precautionary statements.

Hix only the quantity of spray solution which can be used during the same day. Do not allow these rank mixtures to stand overnight as this may result in reduced weed control.

FARMSTEAD WEED CONTROL

When applied as directed for "NONCROP USES", under conditions described, this product controls undestrable vegetation listed on this label around farmstead building foundations, along and in fences, shelterbelts and for general nonselective farmstead weed control.

For specific rates of application and instructions for control of various annual and perennial weeds, see the WEEDS CONTROLLED" section of this label.

FARM DITCHES

This product will suppress perennial grastes along farm ditches. Apply this product at a rate of 6 to 8 fluid ounces per acre. Use 8 fluid ounces per acre when treating tall (coarse) fescue, fine fescue, orthorograss or quackgrass covers. For best suppression of these species, add ammonium sulfate at a rate of 1.7 pounds per 10 gallons of spray solution. Use 6 fluid nunces per acre without ammonium sulfate when treating Kentucky bluegrass.

Apply treatments in 10 to 20 gallons of spray solution per acre to actively growing perennial grass covers. For best apray distribution and coverage, use flat fan notzles.

Add a numionic surfactant at a rate of 0.5 percent of the spray solution. Where broadlest weed control or suppression is desired, early mix this product with an appropriate, labeled broadlest weed herbicide.

CONSERVATION RESERVE PROGRAM (CRP ACRES)

This product can be used to control undestrable vegetation when rotating out of CRP acres or to suppress competitive growth and seed production of undesirable vegetation in (RP acres.

for specific rates of application for various annual and perenoial weeds, see the "WEFOS CONTROLLED" section of this label.

ERP applications may be made with wiper applicators or conventional spray

for selective applications with broadcast spray equipment, apply 12 to 16 countes per acre of this product in early spring before desirable GRP grasses, such as created and tall wheatgrass, break dormancy and initiate green growth. Late fall applications can be made after desirable perennial grasses have reached dormancy. Some stunning of CRP perennial grattes will occur if applications are made when plants are not dormant.

HABITAT MANAGEMENT

This product is recommended for the restoration and/or maintenance of native habitats and in wildlife management areas. Apply as recommended in the "NONCROP USES" section of this tabel

Habitat Restoration and Maintenance—When applied as directed, eartic and other underirable regetation may be controlled in habitat management areas. Applications can be made to allow recovery of native pfant species, prior to planting desirable native species, and for similar broadspectrum vegetation control requirements in habitat management areas. Spot treatments can be made to selectively remove unwanted plants for habitat maintenance and enhancement for spot treatments, care should be exercised to keep spray off of desirable plants.

Wildlife Food Plots-This product may be used as a site preparation treatment prior to planting wildlife load plots. Any wildlife food species may be planted after applying this product, or native species may be allowed to repopulate the area. If tillage is needed to prepare a seedbed, wait I days after applying this product before tilling.

ORNAMENTALS AND **CHRISTMAS TREES**

THIS PRODUCT IS NOT RECOMMENDED FOR USE AS AN OVER-THE-TOP BROAD-CAST SPRAY IN ORNAMENTALS AND CHRISTMAS TREES.

Note: Desirable plants may be protected from the spray solution by using shields or coverings made of cardboard or other impermeable material.

When applied as instructed for the conditions described for "NONCROP USES", this product controls undesirable vegetation listed on this label prior to planting, within and around greenhouses and shadehouses, and as a post-directed spray around established ornamentals and Christmas trees.

for specific rates of application and instructions for control of various annual and perennial weeds, see the "WEEDS CONTROLLED" section of this label.

Where repeat applications are necessary, do not exceed 10.6 quarts of this product per acre per year.

Site Preparation-following preplant applications of this product, any ornamental or Christmas tree species may be planted. Precautions should be taken to protect contarget plants during site preparation applications.

Greenhouse / Shadehouse Use-This product may be used to control weeds listed on this label which are growing in greenhouses. Desirable vegetation must not be present during application and air circulation fam must be turned off.

Postdirected Spray-Use as a postdirected spray around established woody ornamental species or Christmas trees such as those listed below. Care must be exercised to avoid contact of spray, drift or mist with foliage of or green bank of established ornamental species.

Arborvitae

Thuja spp.

Crabapple Mahu spp.

Euonymus

Ahododendron spp.

Еполутив зрр.

Boxwood

Berrus spp.

Abies spp.

Pseudotsuga spp.

Dak Jojoba Owercus soo. Simmondsia Chinensis Privet Hollies Ligusarum spp. llex spp. Pine Lilac Pinus spp. Samue spp Snruce Magnolia Pices son Надпоба зрр Maple

Arer 100.

SILVICULTURAL SITES and RIGHTS-OF-WAY

NOTE: NOT RECOMMENDED FOR USE AS AN OYER-THE-TOP BROADCAST SPRAT IN SUNTCULTURAL RURSERIES.

When applied as directed for "NONEROP USES" under conditions described, this product controls undesirable regetation listed on this tabel. This product also suppresses or controls undesirable regetation fisted on this tabel when applied at recommended rates for release of established confierous species listed on this tabel.

For specific rates of application and instructions for control of various brush, anoual and perential weeks, see the "WTEDS CONTROLLED" section of this label for specific rates of application for release of listed coniferous species, see the "CONFER RELEASE" part of this section of the label.

Where repeat applications are necessary, do not exceed 10.6 quarts of this product per acre per year.

Aerial Application—This product may be applied using aerial spray equipment for sibricultural site preparation, confer release and rights-of-way treatments. See the "APPLICATION EQUIPMENT AND TECHNIQUES" part of the "MILING, ADDITIVES AND APPLICATION INSTRUCTIONS" section of this label for information on how to apply this product by air.

DO NOT APPLY THIS PRODUCT BY AIR TO NIGHTS-OF-WAY SITES IN THE STATE OF CALLFORNIA.

To reduce the aerial application drift hazard to aquatic sites", to nontarget sites or any site containing desirable regretation, always maintain appropriate buffer zones. A buffer zone of the following minimum distances should be maintained:

- Helicopters using a Microlodita boom, a Puna-Vaheeta boom (TVB-45), or equivalent drift control systems, should maintain at least a 50-loot buffer
- . When using other zerial equipment
- Maintain at least a 75-foot buffer zone for applications using 1 quarts or less per acre of this product.
- Majorain at least a 125-foot buffer zone for applications using more than
 2 quarts per acre of this product.
- Maintain at least a 400-foot buffer zone for applications on rights-of-way when applied from 15 feet or more above ground level.

These distances should be increased if conditions beyoning drift exist.

*Aquatic sites include all lakes, ponds and streams used for significant domestic purposes or angling.

SITE PREPARATION

following preplant applications of this product, any silvicultural species may be planted.

POSTDIRECTED SPRAY

In established silvinuitural sites, use as a spray on the foliage of undesirable regeration. Care must be exercised to avoid contact of spray, drift or mist with foliage or green bank of desirable species.

CONIFER RELEASE

for release, apply only where coniters have been established for more than one year. Vegetation should not be disturbed prior to treatment or until visual symptoms appear after treatment. Symptoms of treatment appear, especially in woody species treated in late fall injury may occur to confer treated for release, especially where spray patterns overlap or the higher rates are applied or when applications are made during periods of



active conifer growth. Do not use additional surfactant with conifer release applications.

Applications must be made after formation of final confler resting buds in the fall or prior to initial bud twelling in spring. Some autumn colors on undersizable deciduous species are acceptable provided no major feal drop has occurred. Use the following rates for confler release to control or partially control the weeds listed in the "WEEDS CONTROLLEO" section of this label.

For release of the following conifer species:

Douglas fir

Pines*

Preudottuga menziesii

Pinus spp

Fir

Spruce

Abier spp.

Picea spo.

Remlock

fauga app.

"Includes all species except eastern white pine, lobloity pine or slash pine.

Apply 1.5 to 2 quarts of this product per acre except in Washington and Oregon, west of the crest of the Cascade Hountains. For spring treatments west of the crest of the Cascade Hountains, apply 1 quart of this product per acre before conifer bud swell for control of annual weeds, for fall treatments in Washington and Porgon, west of the crest of the Cascade Hountains, apply 1 to 4.5 quarts of this product per acre before any major leaf drop of deciduous species.

for release of western hemiock, apply I quart of this product per acre.

For release of the following conifer species:

Lobiolly pine

Slash pine

Eastern white pine

Finus strobus

Late Season Application—Apply 1.5 to 2 quarts of this product in a minimum of 5 gallons of spray solution per acre during early audimn. Applications made prior to September 1 or when conditions are conductive to rapid growth of conflers will create the potential for increased injury in the form of tip and/or needle burn, lojury may decrease with later

applications. Some autumn colors are acceptable at time of application. Apply prior to frost or leaf drop of undesirable plants. Applications made according to label directions will release lobfolly pine, eastern white pine and shash pine by reducing competition from the following species:

Persimmon

Diospyros spp

Sassafras

Sourwood

Sumac:

Poison

Smooth

Winged

Dan remo

Nhus ghabra

Poplar, yellow

laucalma albidum

Oxydendrum erboreus

Linedendron ruliplera

Ash

Fratinus spp.

Cherry:

Black

Park termina

Pin

Promos pensylvanica

Elm

Ulmus spp.

Hawthorn Comegui 199.

Locust, black

Robina pseudoacacia

Mapie, red Are rebra

ACET DEST

0ak:

Black

Quercus velucina

Post

Overcus stellana

Southern Red Querus blace

White

Queran alba

Ahus copallina Sweetgum Eiguidandar styraciflua

Apply only to those sites where woody brush and trees listed in this label constitute the majority of the undestrable species.

Glyfos plus Oust Tank Mixtures for Conifer Release from Herbaceous Weeds

To release to blothy primes from herbaccous weeds, tank minutes of this product with Ouss will provide control of annual weeds fisted in the "WEEOS CONTROLLED" section of this and the Ouss tabel, and partial control of the percental weeds listed below.

Apply 16 to 14 fluid conces of this product with 2 to 4 conces of Oust in 10 to 30 gallons of sprzy solution per acre. Make application to actively growing weeks as a broadcast sprzy over the top of the young lobfolly pines.

This product plus Oust tank mixtures may not be applied by air in California.

This tank mixture may be applied using aerial equipment. When applying by air, use the recommended rate in S to 85 gallons of spray solution per acre.

for control of annual weeds below 12 inches in height (or runner length on annual vines), use the lower rates of both products. Due the higher rates of both products when annual weeds are in more advanced stages of growth and approaching flower or seed formation.

Use the higher rates of both products for partial control of the following perennial weeds. Use the lower rates for suppression of growth.

Bahiagrass Paspalvm notatum Johnsongrass* Sorghum halepense

Broomsedge Andropogon virginicus Poorjoe* Diodia teres

Dock, curly lumes crispus Trumpetcreeper**

Lampis radicans

Dogfennel Eupstorium capilliforium

Vaseygrass Paspalum urvillei

Fescue, tall

Yervain, blue

festuca arundinacea

Yervain, blue Yerbena hasiata

*Control at the higher rates.

Pine damage may occur or can be accentuated if treatment takes place when young trees are under stress from drought, flood water, insects or disease.

Read and observe the cautionary statements and all other information appearing on the labels of all herbicides used.

NOTE TO USER

This product must not be used in areas where adverse impact on lederally designated endangered/threatened plant or aquanc species is likely.

Prior to making applications, the user of this product must determine that no such species are focated in or immediately adjacent to the area to be preated.

CUT STUMP TREATMENTS

Woody regeration may be controlled by treating treshly out sumps of trees and resprours with this product. Apply this product using suitable equipment to ensure coverage of the entire cambium. Lut vegetation close to the soil surface. Apply a 50 to 100 percent solution of this product to the freshly-cut surface immediately after cutting. Delays in application may result in reduced performance, for best results, applications thould be made during periods of active growth and full leaf expansion.

When used according to directions for cut stump application, this product will CONTROL PARTIALLY CONTROL or SUPPRESS many types of woody brush and tree species, some of which are listed below:

Alder Ahus spp.

Saltcedar Tamarisk spp

Eucalyptus Eucalyptus spp.

Sweetgum Liquidambar sıpracifiya

Madrone Abuns menuiesii

Tan Dak Lithocarpus densiflorus

Dale Annua Willow

Quercus spp.

Angar Ab

Reed, giant Arendo donza

^{**}Suppression at the higher rates only,

INJECTION AND FRILL **APPLICATIONS**

Woody regutation may be controlled by injection or full application of this product. Apply this product using suitable equipment which must penetrate into the living tissue. Apply the equivalent of I ml of this product per each 2 to 3 inches of trunk diameter (DBH). This is best achieved by applying a 50 to 100 percent concentration of this material either to a continuous frill around the tree or as cuts evenly spaced around the tree below all branches. As tree diameter increases in size, better results are achieved by applying diluted material to a continuous hill or more closely spaced cuttings. Avoid application techniques that allow runoff to occur from bill or cut areas in species that exude sap freely after fails or cutting. In species such as this, make frill or cut at an oblique angle so as to produce a cupping effect and use unditured material, for best results, application should be made during periods of active growth and after full leaf expansion.

This treatment WILL CONTROL the following woody species:

0ak

Sweetgum

Quercus spo

Liquidamber styraoilua

Poplar Populus spp. Sycamore . Platanus occidentalis

This treatment WILL SUPPRESS the following woody species:

Black gum Nyssa nyhratica Hickory Carra spp.

Dogwood

Maple, red

Cornus spp.

Acer rubrum

TURFGRASSES AND GRASSES FOR SEED PRODUCTION

PREPLANT, AND RENOVATION

When applied as directed for "NONCROP USES", under conditions described, this product controls most existing vegetation prior to the planting or renovation of either terigrasses or grass seed production areas.

for specific rates of application and instructions for control of various annual and perennial weeds, and woody brush and trees, see the "WEEDS CON-TROLLED" section of this label

for maximum control of existing vegetation, delay planting to determine if any regionsh from escaped underground plant parts occurs. Where repeat treatments are necessary, sufficient regrowth must be attained prior to application, for warm-season grasses, such as bermudagrass, summer or fall applications provide best control

DO NOT DISTURB SOIL OR UNDERGROUND PLANT PARTS BEFORE IREAIMENT. Islage or renovation techniques such as vertical moving, coring or slicing should be delayed for 7 days after application to allow proper transforation into underground plant parts.

TURFGRASSES

Where existing regetation is growing in a field or unmoved situation, apply this product to actively growing weeds at the stages of growth listed in the WEEDS CONTROLLED section of this label.

Where existing regetation is growing under moved turigrass management. apply thus product after omitting at least one regular moving to allow suffi-cient growth for good interreption of the spray.

Desirable surigrasses may be planted following the above procedures.

GRASSES FOR SEED PRODUCTION

Apply this product to actively growing weeds at the stages of growth recommended in the "WEEDS CONTROLLED" section of this label prior to planting or renovation of harf or forage grass areas grown for seed production.

DO NOT feed or graze treated areas within 8 weeks after application.

ANNUAL WEED CONTROL IN DORMANT BERMUDAGRASS AND BAHIAGRASS TURF

When applied as directed for "HONCROP USES" under the conditions described, this product will provide control or suppression of many winter annual weeds and tall lescue for effective release of dormant bermudageass and bahiagrass turi. Refer to the rate table for Glyfos alone under the

"RELEASE OF BEAMUDAGRASS OR BAHLAGRASS" section of this label for recommended rates and volumes on the species to be suppressed or controlled. Iteas only when turf is dormant and prior to spring greenup. Spot creaments or bradeast applications of the product is pring greenup. Spot creaments or bradeast applications of the product is pring greenup in 16 fluid owners per acre may result in injury or Celayed greenup in highly maintained turforgrass areas, i.e., golf courses, lawas, etc. 90 HOT APPLY IAMA HUXTURES of this product plus Oust in highly maintained turforgrass areas.

RELEASE OF BERMUDAGRASS OR BAHIAGRASS

MOTE: Use only in areas where bearnudageass or bahiageass are desirable ground covers and where some temporary injury or discoloration can be tolerated. Use tank mixtures of this product plus Oust only on railroads, highways, utility plant sites, or other right-of-way areas.

When applied as directed for "NONCROP USES" under the conditions described, this product will provide control or suppression of many winter annual weeds and tall feacuse for effective release of dormant bermudagrass or bahiagrass. This product may be tank-mixed with Oust as recommended for residual control. Hake applications to dormant bermudagrass or bahiagrass. Iank mixtures of this product plus Ouss may delay greenup. To avoid others in greenup and minimize injury, do not add more than I ownee per acre of Oust on bermudagrass or more than 0.5 ownee per acre on bahiagrass, or treat when these grasses are in a semi-dormant condition.

for best results on winter annuals, treat when plants are in an early growth stage (below 6 inches in height) after most have germinated for best results on tall lesture, treat when festure is in or beyond the 4- to 6-leaf stage.

WEEDS CONTROLLED

hate recommendations for control or suppression of winter annuals and tall feacuse are listed below:

Apply the recommended rates of this product alone or as a tank mixture in 10 to 25 gallons of water, plus 0.5 to it percent nonionic surfactant by total spray volume per acre.

for the best recommendation for the mixture of weeds within your geographic area, contact your sales representative.

WEEDS CONTROLLED OR SUPPRESSED WITH Glyfos ALONE*

HOTE: C = Control S = Suppression

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		GI,	fos Fi	UID O	VACRE		
WEED SPECIES	8	13	łś	24		64	
Barley, little Hordeym pullion	5	C	ſ	((f	
Bedstraw, catchweed Gallon apprine	S	(ť	C	٤	ξ	
Bluegrass, annual Pos seus	1	•	£	ſ	ι	ſ	
Chervil Oserophyllum taintarieri	\$,	ζ	(Ç	ſ	(
Chickweed, common Sularis peda	3	Ç	(ť	ζ	ſ	
Clover, crimson Iridam incamatus	•	\$	s	ć	£	C	
Clover, large hop	•	5	1	ŗ	ſ	ſ	
Fescue, cali Issue auménaceas	•	•	•	•	í	5	
Geranium, Carolina Geranium carolinam	•	•	ś	5	(ę	
Kenbit Laxium amphaicada	•	វ	ί	¢	Ç	ζ	
Ryegrass, Italian Long multiform	•	•	ı	(ί	Ç	
Speedwell, com	í	Ç	Ç	•	ľ	(
Yetch, common You suns	•	•	\$	C	ť	(

These rates apply only to situs where an established competitive tank is present.

SECTION OF THE PROPERTY OF THE

WEEDS CONTROLLED OR SUPPRESSED WITH Glyfos PLUS OUST*

HOTE: (= Control \$ = Suppression

Glyfos + OUST

		<u> </u>						
WEED SPECIES	ON21 (OTA) + (LT OTA) CHO#	8 + 1/4	12 + 1/4	Ω + 1/2	16 + 1/4	16	12 + 1	16
Barley, little Hardeum pusibum		ι	ί	ί	((Ç	(
Bedstraw, catchweed Galum aparim		(((C	((C
Bluegrass, annual Poa कामध्य	. : *.4	. ک.ر	. (((ſ	ξ	C
Chervil Chaerophyllum zaigturieri		(ί	ſ	((C	C
Chickweed, common Smlaria media		Ś	((C	(((
Clover, crimson Irilolom என்னை		S	3	i	š	Ċ.	((
Clover, large hop Infoliom competite		•	•	3	\$	5	(C
Fescue, tall Festuca arundinoceae		•	•	•	•	•	Ş	S
Geranium, Carolina Geranium curdinianum		•	\$	3	Ć	ſ	((
Henbit Lamina amplericanie		•	S	Ċ	C	(Ç	t
Ryegrass, Italian Lolum muliflorum		•	Ş	S	(ſ	ζ	C
Speedwell, corn Termica arvensis		5	C	{	((Ċ	(
Yetch, common Yida satira		((C	(C	((

These rates or mixtures of rates apply only to sites where an established competitive turl is present.

RELEASE OF ACTIVELY GROWING BERMUDAGRASS

When applied as directed, this product will aid in the release of bermudagrass by providing control of annual species listed in the "WEEOS CON-TROLLEO" section of this and the Oust label, and suppression or partial control of certain perennial weeds.

for control or suppression of those annual species listed on this label, use I to 3 pints of this product as a broadcast spray in IO to 25 gallons of spray solution per acre. Use the lower rate when treating annual weeds below 6 inches in height (or length of runner in annual vines). Use the higher rate as weeds increase in size or as they approach flower or seedhead formation.

Use the higher rate of this product for partial control of the following perennial species. Use the lower rates for suppression of growth for best results, see the "WEEDS CONTROLLED" section of this label for proper stage of growth.

Bahiagrass Paspalum noranum

fohnsongrass* Sorghum halepense

Bluestern, silver Andropogon satcharoides Trumpetcreeper**
Campsis radicans

Fescue, tall
festura anundinacea

Vaseygrass Paspatum uzvillei

"Lontrol at the higher rates.

**Suppression at higher rates only.

This product may be tank-mixed with Oust. If tank-mixed, use no more than 1 to 2 pints per acre of this product with 1 to 2 ounces of Oust per acre.

Use the lower rates of both mixtures to control annual weeds below 6 inches in height (or runner length in annual vines) that are listed in the "WEEDS CONTROLLED" section of this booklet and the Oust tabel. Use the higher rates as annual weeds increase in size and approach the flower or seedhead stages.

Use the higher cares of this product to provide partial control of the following perennial weeds. Use the lower cares for suppression of growth.

THE REAL PROPERTY OF THE PROPE

Bahiagrass Paspalum notatum

Bluestem, silver Andropogon saccharoides

Broomsedge

YuquoboBoo Ayliginian Dock, curly Rutter crispus

Dogfennel

Eupatorium capilliforium

Fescue, talf festuca arvadinacea

Suppression at higher rates only.

""Control at the higher rates.

Use only on well-established bermudagrass. Bermudagrass injury may result from the treatment but regrowth will occur under moist conditions. Repeat applications in the same season are not recommended, since severe injury may result.

johnsongrass*

Diodia teres

Yaseygrass

Sorghum halepense Poprioe**

Trumpetcreeper*

Campsis radicans

Paspalum urvillei

Yervain, blue

Verbena hastata

head and carefully observe the causionary statements and all other information appearing on the tabels of all herbicides used.

COOL SEASON TURF GROWTH REGULATION

When applied as directed, this product will suppress growth and seedhead development of listed truf species in industrial sites.

This product is recommended for management of coarse turn on roadside rights-of-way or other industrial areas. Do not use on high-quality turn or other areas where some turi color changes cannot be tolerated. Sight turi discoloration may occur but turk will regreen and regrow under maist conditions as effects of this product wear off.

Apply 4 to 6 fluid nunces of this product per acre alone or in a recommended tank mixture. Spray volumes of 10 to 40 gallons per acre are rac-

When using this product, mix 2 quarts of a nonionic surfactant per 100 gallens of spray solution.

This product can be used for growth and seedhead suppression of

Tall Fescue Smooth Brome

for best results, apply this product in a recommended sank misture to pression of seedheads, applications made from seedhead emergence until maturity may result in rurl discoloration or injury.

After moving or removal of seedheads, this product in a recommended tank mixture may also be used to suppress the growth of certain surfigrasses. Allow surf to recurse from stress caused by heat, drought or moving before making applications. Applications made to our under stress may increase the potential for discoloration or injury.

for growth suppression of some annual grasses such as annual cyegrass, wild barley and wild oath apply 3 to 4 fluid ounces of this product in 10 to 40 gallons of spray solution per acre. Applications should be made when annual graues are actively growing and before the seedleads are in the bool stage of development. Iteatments made after seedlead emergence may cause injury to the desired grasses.

TANK MIXTURES

For the following tank mixtures, consult each product label for weeds concrofted and the correct stage of application. Do not treat turk under streu.

Tank mixtures plus 2,4-0 Amine

for additional weed control benefits, up to 1 pound ail per acre of 2,4-0 arriage may be added to the following tank mixtures. Consult the label for 1.4-D amine for weeds controlled.

TALL FESCUE

Glyfos plus Telar™

For suppression of tall lescue growth and seedheads, and control or partial control of some annual wreeds, apply this tank musture after greenup and prior to boot-to-seedhead stage of development. Use up to 0.5 ounce of lefar per acre.

This cank mixture can also be applied after moving or removal of tall fescure seedheads for surf growth suppression. Make only one of the above applications per growing season.

Glyfos plus Oust

for suppression of tall fescure growth and seedheads, and control or partial control of some annual weeds, apply this tank maxture after greenup and prior to boot-to-seedhead stage of development. Use up to 0.25 ounce of Oust per acre.

Glyfos plus Escort^{7M}

This tank mixture can be applied after moving or removal of tall festure seedheads for turf growth suppression and control or partial control of some annual weeds. Use up to 1/3 ounce of Escort per acre.

SMOOTH BROME

Glyfos plus Oust

for suppression of amouth brome growth and seedheads and control or partial control of some annual weeds, apply this tank mixture after greenup and prior to boot-to-seedhead stage of development. Use up to 0.25 ounce of Oust per acre.

BAHIAGRASS SEEDHEAD AND VEGETATIVE SUPPRESSION

When applied at directed in the indicated noncrop areas (roadsides, airports, golf course roughs, and plant sites), this product will provide significant inhibition of seedhead emergence and will suppress vegetative growth for a period of approximately 45 days with single applications and approximately 120 days with sequential applications.

Apply this product 1 to 2 weeks after full greenup of bahiagrass or after the bahiagrass has been mowed to a uniform height of 3 to 4 inches. Applications must be made prior to seedhead emergence. Apply 6 fluid ounces per acre of this product plus 0.5 to 1 percent nonionit surfactant by total spray volume in 10 to 25 gallons of water per acre.

Sequential applications of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume may be made at approximately 45 day intervals to extend the period of seedhead and vegetative growth suppression. For continued seedhead suppression, sequential applications must be made prior to seedhead emergence. Apply no more than 2 sequential applications per per are plus nonionic surfactant. A second sequential application of 2 to 4 fluid ounces per are plus nonionic surfactant may be made approximately 45 days after the last application.

A tank mixture of this product plus Oust may be applied only on roadsides for seedhead inhibition and regetaire suppression. Apply 6 fluid ounces per acre of this product plus 0.25 ounce per acre of Oust, plus 0.5 to 1 percent nonionic surfactant by total spray volume 1 to 2 receives following an initial spring moving. When using this product plus Oust for suppression of bahingram, make only 1 application per year.

CROPPING SYSTEMS

When applied as directed for "CROPPING STSTEMS", under the conditions described, this product controls annual and perennial weeds listed on this label, prior to the emergence of direct seeded crops or prior to transplanting of crops listed on this label.

See "GENERAL INFORMATION" and "MIXING, ADDITIVES AND APPLICATION INSTRUCTIONS" sections of this label for essential product performance information,

See the following "CROPPING SYSTEMS" sections for specific recommended uses.

EXTREME CARE MUST BE EXERCISED TO AVOID CONTACT OF SPRAY WITH FOLIAGE, GREEN STEMS OR FAULT OF DESIRABLE CROPS, PLANTS, TREES OR OTHER DESIRABLE VEGETATION SINCE SEVERE DAMAGE OR DESTRUCTION MAY RESULT.

Repeat treatments may be occursary to control weeds regenerating from underground parts or seed. Except as otherwise specified on thirs label, repeat treatments must be made before the crop emerges in accordance with the instructions of this label.

Except as otherwise specified in a crop section of this label, the combined total of all treatments must not exceed 8 quarts per acre of this product per year.

for any crop not listed below, applications must be made 30 days gries to planting.

Do not harvest or feed treated vegetation for 8 weeks following application, following spot treatment or selective equipment use, allow 14 days before grazing domestic tivestock or harvesting lorage grasses and legumes.

ROW CROPS CORN (ALL)* соттой* PEANUTS SORGHUM (MILD)* SOTBEAMS* SUGARCANE* CEREAL GRAINS BARLEY* **BUCKWHEAT*** MILLET (PEARL, PROSO)* OATS* RICE** RTE* TRITICALE* WHEAT (ALL)* CITRUS CALAMONDIN

CHIRONIA

GRAPEFRUIT

KUMQUAT

CITRON

LEMON

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BEANS (ALL) BEET GREENS BEETS (RED, SUGAR) BROCCÓLI (ALL) BRUSSELS SPROUTS CABBAGE (ALL) CABBAGE, CHINESE CANTALOUPE*** CARROT CAULIFLOWER CASABA MELON*** CELERIAC CELERY CHARD, SWISS CHICORY COLLARDS CRENSHAW MELON*** CUCUMBER*** EGGPLANT*** ENDIVE GARLIC***

YEGETABLES ARTICHOXE, JERUSALEM ASPARAGUS*

LIME
MANDARIN ORANGE
ORANGE (ALL)
PUMMELO
TANGELO
TANGERINE
TANGORS
TREE NUTS

TANGORS
TREE NUTS
ALMOND
BEECHNUT
BRAZIL NUT
BRAZIL NUT
BRAZIL NUT
CASHEW
CHESTNUT
CHINQUAPIN
FILBERT (NAZELNUT)
HICKORT NUT
MACADAMIA
PECAN
PISTACHIO

WALNUT (BLACK, ENGLISH)

YINE CROPS GRAPES KIWI FRUIT

TREE FRUITS
APPLE
APPLCOTS
CHERRY (SWEET, SOUR)
LOQUAT
MAYHAW
MECTABINE
OLIVE

PEACH PEAR PLUM/PRUNE (ALL) QUINCE GOURDS***
GROUND CHERRY***
HONEY BALL MELON***
HORSERADISH
KALE
KOHLRABI,
LEEK
LEMTILS
LETTUCE
MANGO MELON***

MELONS (ALL)***
MUSTARD GREENS
OKRA
ONION
PARSLEY
PARSNIPS
PEAS (ALL)
PEPPER (ALL)***
PERSIAN MELON***
POTATO (IRISH,SWEET)
PUMPKIN***
RADISH

SHALLOT
SPINACH (ALL)
SQUASH (SUMMER, WINTER)***
TOMATILLO***
TOMATO***
TURNIP

WATERCRESS***
WATERMELON***
YAMS

RAPE GREENS

RHUBARB

RUTABAGA

SMALL FRUITS AND BERRIES BLACKBERRY BLUEBERRY BOYSENBERRY CRAMBERKY CURRANT DEWBERRY **ELDERBERRY** GOOSEBERRY HUCKLEBERRY LOGANBERRY **OLALLIEBERRY** RASPBERRY (BLACK, RED) FORAGE CROPS AND LEGUMES

CARAMBOLA CHERIMOYA COCOA BEANS COFFEE DATES FIGS GENIP GUAYA **LABOTICABA** LACKERUIT LONGAN LYCHEE MANGO PAPAYA PERSIMMONS

ATALFA* FORAGE GRASSES* FORAGE LEGUMES* TROPICAL CROPS

PASSION FRUIT PINEAPPLE**** **POMEGRANATE** SAPOBILLA

ACEROLA **ATEMOYA** AVOCADO BANANA (PLANTAINS) BREADFRUIT CARISTEL

SAPOTE (BLACK, MAMEY, WHITE) SOURSOP SUGAR APPLE TAMARIND TEA

"Spot treatments may be applied in these crops.

- ""Do not creat rice fields or levees when the fields contain flood water.
- ***Apply only prior to planting, Allow at least 3 days between application and planting.
- ****Do not feed or graze treated pineapple forage following application. Use is restricted to direct seeded crops only.

When applying this product prior to transplanting crops into plastic mulch, care must be taken to remove residues of this product from the plastic prior to transplanting, Residues can be removed by 0.5 inch natural rainfall or by applying water via a sprinkler irrigation system.

Spot Treatment (Only those crops with "" can be spot treated)-Applications in growing crops must be made prior to heading of small grains and mile, initial pod set in soybeans, silking of corn, or boll opening on

for forage grasses and forage legumes see "SPOT TREATMENT" in the "PASTURES" section of "CROPPING SYSTEMS" in this label.

for dibution and rates of application using boom or hand-held equipment, see "HIJHG, ADDITIVES AND APPLICATION INSTRUCTIONS" and "WEEDS CON-TROLLED" sections of this label.

MOTE: FOR FORAGE GRASSES AND FORAGE LEGUMES, NO MORE THAN ONE-TENTH OF ANY ACRE SHOULD BE TREATED AT ONE TIME, FOR ALL OTHER CROPS, DO NOT TREAT MORE THAN TO PERCENT OF THE TOTAL FIELD AREA TO BE HARYESTED.

THE CROP RECEIVING SPRAY IN TREATED AREA WILL BE KILLED, TAKE CARE TO AVOID ORIFF OR SPRAY OUTSIDE TARGET AREA FOR THE SAME REASON.

Selective Equipment—This product may be applied through recirculating sprayers, shielded applicators or wiper applicators in cotton and soybeans. Shielded and wiper applicators may also be used in tree crops and grapes. Wiper applicators may be used in rutabagas, forage grasses and forage legumes, including pasture sites and grain surghum (milo).

See the "SELECTIVE EQUIPMENT" part of the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label for information on proper use and calibration of this equipment.

Allow at least the following time intervals between application and harvest:

Apples, Atemoya, Avocado, Breadiruit, Canistel, Carambola, Cherry, Girus, Dates, Grapes, Jaboticaba, Jackfruit, Longun, Lychee, Passion Fruit, Pear, Persimmons, Rutabagas, Sapudilla,

Sapote, Soursop, Sugar Apple, Tamarind Nut Crops, except pistachios...

Pistachio outs ... Songhum (mile)*.

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"Do not use roller applicators, do not leed or graze treated milo fodder. Do not enale treated vegetation.

ASPARAGUS

When applied as directed for "CAOPPING STSTEMS" under the conditional described, this product controls weeds listed on this label in asparagus.

for specific rates of applications and instructions for control of various annual and perennial weeds, see the "WEEDS CONTROLLED" section of this label.

Prior to Crop Emergence—Apply this product prior to crop emergence for the control of emerged sabeled annual and perennial weeds. DO NOT APPLY WITHIN A WIEX BEFORE THE FIRST SPEARS EMERGE.

Spot Treatment—Apply this product immediately after curing, but prior to the emergence of new spean. Do not treat more than 10 percent of the total field area to be harvested. Bo not harvest within 5 days of treatment.

Posthanvest—Apply this product after the last harrest and all spears have been removed. If spears are allowed to region, delay application until ferms have developed. Delayed treatments should be appliced as directed or shielded spray in order to avoid contact of the spray with ferms, stems or spears. Direct contact of the spray with the asparagus may result in serious crop injury.

NOTE: Select and use recommended types of spray equipment for postemergence postharvest applications. A directed spray is any application where the spray pattern is aligned in such a way as to avoid direct contact of the spray with the crop. A shielded spray is any application where a physical barrier is positioned and maintained between the spray and the crop to prevent contact of spray with the crop.

BERRIES AND SMALL FRUITS

Wiper applicators may be used in cranberries in accordance with instructions in this section.

for other berries, apply as a preplant broadcast application, or as a directed spray or wiper application post-planting.

See "GENERAL INFORMATION" and "HIXING, ADDITIVES AND APPLICATION INSTRUCTIONS" sections of this label for essential product performance information.

See the "SELECTIVE EQUIPMENT" part of the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label for information on recommended use and calibration of this equipment.

kilow a minimum of 30 days between hast application and harvest of cranberries. For other small fruits and berries, allow a minimum of 14 days between last application and harvest

For Wick or other Wiper Applicators—Tix I gallon of this product in 4 gallons of water to prepare a 20 percent solution.

In severe infestations, reduce equipment ground speed to ensure that adequate amounts of this product are wiped on the weeds. A second treatment in the opposite direction may be beneficial.

Do not permit herbicide solution to contact desirable vegetation, including green shoots, canes or foliage.

FALLOW AND REDUCED TILLAGE SYSTEMS

FOR AFRIAL APPLICATION IN CALIFORNIA, REFER TO SUPPLEMENTAL LABEL

Use this product in tallow and reduced tillage systems for control of annual weeds prior to emergence of crops listed in this tabel. Refer to the "WEEDS CONTROLLED" section of this label for specific rates and instructions. This product may be applied using ground or aerial spray equipment. See the "APPLICATION EQUIPMENT AND TRUNKIQUES" section of this label for instructions.

TANK MIXTURES

Glyfos plus BANYEL plus NONIONIC SURFACTANT

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Glyfos plus 2,4-D plus NONIONIC SURFACTANT

Glyfos plus GOALTM plus NONIONIC SURFACTANT

OO NOT APPLY BANYEL OR 2.4-D TAXX MIXTURES BY AIR IN CALIFORNIA. Applications of 2.4-D or Barwel must be made at least 7 days prior to planning corn.

The addition of Barrel in a mixture with this product may provide shortterm residual control of selected weed species. Some crop injury may occur il Barrel is applied within 45 days of planting. Refer to the Barrel and 2,4-D labels for cropping restrictions and other use instructions.

Glyfos plus Goal Tank Mixtures

This product alone or in tank mixtures with Goal plus 0.5 to 1 percent nonionic surfactant by total spray volume will provide control of those weeds found below

Make applications when weeds are actively growing and at the recommended staget of growth, Avoid spraying when weeds are subject to moisture stress, when dust is on the foliage or when straw canopy covers the weeds.

Glyfos 12 Nuid ozi Wheat Bartey Buegrass, annual Barnyardgrass Rye	8" 1" 6" 6"	Gtyfos 16 fluid oz/ac Annual grasses at left plus: Ryegrass, annual Chickweed Groundsel Marestail	6" 6" 6"
garmardgrass	-	4-1	

MOTE: Use 32 fluid ounces of this product per acre where heavy weed densities exist.

Glyfos 12 fluid ozlacre + GOAL** 2 to 4 fluid ozlacre		Glyfos 16 fluid ozlacre + GOAL** 2 to 4 fluid ozlacre			
Annual grasses above plus:		Annual weeds above plus:			
Cheeseweed, common	3-	Cheeseweed, common	6-		
Chickward	3"	Groundsel	67		
Groundsel	3*	Chickwood	12-		
Rocket, London	6-	Rocket, Landon	127		
Shepherd's-purse	6-	Shepherd's-purse	12"		

NOTE: Use 32 fluid ounces of this product per acre in mixtures with 2 to 4 fluid ounces of Goal per acre where heavy weed densities exist.

These recommended tank minimumes may be applied using ground or aerial spray equipment. Refer to the "WEEDS CONTACLED" section of this label for specific rates and instructions.

ECOFARMING SYSTEMS

The recommendations made in this section are not registered for use in California.

The Ecofarming System consists of the following rotation: winter wheat, corn/sorghum, ecofallow.

Use the following tank mixtures for control of emerged annual weeds before planting corn or sorghum in the Ecofarming System.

Glyfos at 16 to 20 fluid ounces per acre plus 2,4-D at 0.375 to 0.5 pound a.i. per acre plus ATRAZINE at 0.75 to 1 pound a.i. per acre plus LASSO® at 2.5 to 3 quarts per acre

[&]quot;Maximum beight or length in inches.

[&]quot;"Use the higher rate of Goal when weeds approach maximum recommended beight or stands are dense.

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The above tank mixture should be applied in 28-0-0 or 32-0-0 figuid terülizer carrier at 20 to 30 gallons per acre. The liquid terülizer may be dikuted with water to achieve the desired carrier volume.

WEEDS COXTROLLED—The following weeds, up to a maximum height of 4 inches, will be controlled:

Brome, downy Broms tectorum Lettuce, prickly

Cheat

.n.eat Bromus secalinus Pigweed, redroot

Foxtail, green Setana vindis Thistle, Russian Saluda kab

Foxtail, yellow Searia buestes Wheat, volunteer

Kochia* Kochia kopana

"For improved control of kochia, add 4 fluid ounces per atre (0.125 pound a.i. per acre) of Saurrel to the above tank mixture.

Risk of crop injury from 2.4-D or Barrel can be reduced by applying this treatment 7 to 14 days before planting.

Refer to the label bookles for basso herbicide for preemergence weed control achieved by this tank mixture.

Ruler to the specific product labels for crop rotation restrictions and cautionary statements for all products used in these tank mixtures.

AID TO TILLAGE

This product, when used in conjunction with preplant tillage practices, will provide control of downy brome, cheat, volunteer wheat, tamy mustard and faxual. Apply 8 fluid ounces of this product plus 0.5 to 1 percent monionic surfactant by total spray volume in 3 to 10 gallous of water per acre. Make applications when weeds are actively growing and before they are 6 inches in height. Application must be followed by conventional tillage practices on later than 15 days after treatment and before regrowth occurs. Allow at least 1 day after application before tillage. Iank mixtures with residual herbicides may result in reduced performance.

PASTURES

Apply this product prior to planting forage grasses and legumes.

Pasture or Hay Crop Renovation—When applied as a broadcast spray, this product controls the annual and perennial weeds fissed in this label prior to planting forage grasses or legumes. Remove domestic fivestock before application and wait 8 weeks after application before grazing or harvesting.

Spot Treatment—When applied as a spot treatment as recommended, this product controls annual and perennial weeds listed in this label which are growing in pastures, forage grasses and forage legumes composed of bahiagrass, bermudagrass, biregrass, tome, lescure, orchardgrass, ryegrass, timothy, wheatgrass, aliatia or dover.

Wiper Application—When applied as directed, this product controls or suppresses the weeks fisted under "WIPER APPLICATORS" in the "SELECTIVE EQUIPMENT" section of this label.

for spot treatment and wiper application, apply in areas where the movement of domestic fivestock can be controlled. No more than one-tenth of any acre should be treated at one time. Further applications may be made in the same area at 30-day intervals. Remove domestic livestock before application and wait 14 days after application before grazing fivestock or harvesting.

SUGARCANE

When applied as directed for "CADPPING STYTEMS", under the conditions described, this product controls those emerged annual and perential weeds listed on this tabel growing in or around sugarcane or in fields to be planted to sugarcane. This product will also control undesirable sugarcane.

NOTE: Where repeat treatments are necessary, do not exceed a total of 10.6 quarts of this product per acre per year. Do not apply to regetation in or around ditches, canals or ponds containing water to be used for irrigation.

Broadcast Treatment—Apply this product in 10 to 40 gallons of water per acre on emerged weeds growing in fields to be planted in sugarcane.

For specific rates of application and instructions for control of various annual and perennial weeds, see the "WIEDS CONTROLLED" section of this label.

for removal of last stubble or ration cane, apply 4 to 5 quarts of this product in 10 to 40 gallons of water per acre to new growth having at least 7 or more new leaves. Allow 7 or more days after application before tillage.

Spot Treatment in or Around Sugarcane Fields—for dilution and rates of application using hand-held equipment, see "MIXING, ADDITIVES AND APPLICATION INSTRUCTIONS" and "WEEDS CONTROLLED" sections of this label.

for control of volunteer or diseased sugarcane, make a 1 percent solution of this product in water and spray to wet the foliage of vegetation to be controlled.

NOTE: When spraying volunteer or diseased sugarcane, the plants should have at least 7 new leaves.

Avoid spray contact with healthy cane plants since severe damage or destruction may result.

Do not feed or grave created sugarcane forage following application.

CONSERVATION TILLAGE, MINIMUM TILLAGE AND NO-TILL SYSTEMS CORN AND SOYBEANS Tank Mixtures

The recommendations made in this section are not registered for use in California

When applied as recommended under the conditions described, the tank mixtures listed in this section control many emerged weeds, and give preemergence control of many annual weeds where corn or soybeans will be planted directly into a cover crop, established sod or in previous crop residens.

Refer to specific product labels for crop rotation restrictions and cautionary statements of all products used in these tank mixtures. For mixing instruc-

tions, see the "MIXING, ADDITIVES AND APPLICATION INSTRUCTIONS" section of this label.

Apply these tank mixtures in 10 to 70 gallons of water or 10 to 60 gallons of nitrogen solution per acre before, during or after planting. Do not apply these mixtures after crop emergence.

When tank mixing with residual herbicides, add an agriculturally approved nonionic surfactant at 0.5 to 1 percent by volume of spray solution. The addition of 1 to 2 percent dry ammonium sulfate by weight may increase the performance of this product.

NOTE: When using these cank mixtures, do not exceed 4 quarts of this product per acre.

CORN

for residual control, this product may be tank-mixed with the following herbicides or combination of herbicides:

LASSO/ALACHLOX	ATRAJINE
TY30Y Leo	CYANAZINE
BULLETS	SIMAZINE
DUAL ^{ta}	PROWL
BICT PTM	MICRO-TECH
PARTHER®	

for improved burndown, this product may be tank-mixed with 2.4-D or dicamba. Applications of 2.4-D or dicamba must be made at least 7 days prior to planting corn. See the "WEEDS CONTROLLED" section for specific rate information.

SOYBEANS

for residual control, this product may be tank-mixed with the following berbicides or combination of herbicides:

LANOPYTA	LOROXIII PLUS
COMMANDO	PREVIEWTE
DUAL	PROWL
GEMINI ^{TO}	TURBO™
EASSO/ALACHLOR	SCEPTERT.
LEXONET	SENCORE
UNURON	MHONDADOS
PUASUITA	PURSUIT PLUSTA
PARTNER	MI(RO-TECH®

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for improved humdown, this product may be tank-mixed with the following

2,4-08

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See the label for 2.4-D for intervals between application and planting.

CORN AND SOYBEANS

Annual Weeds—for difficult-to-control weeds such as bill particum, barmyardgraus, crabgraus, shattercane and broadleaf signalgraus up to 2 inches tail, and Pennsylvania smartweed up to 6 inches tail, apply this product at 2 pints per acre in these tank mistures. For other labeled annual weeds, apply 1 to 1.5 pints of this product per acre when weeds are less than 6 inches tail, and 2 to 3 pints when weeds are over 6 inches tail, and 2 to 3 pints when weeds are over 6 inches tail. For a complete hit of annual weeds controlled, see the "WEEDS CONTROLLED" section of this label.

Perennial Weeds—At normal application times in minimum tillage systems, personal weeds may not be at the proper stage of growth for control. See the "WEEDS CONTROLLED" section of this label for the proper stage of growth for personal weeds.

Use of 2 to 4 quarts of this product per acre in the tank mixtures mentioned above, under these conditions provides top till and reduces competition from many emerged perennial grass and broadleal weeds, for emerged perennial weeds controlled, see the "WEEDS CONTROLLED" section of this label.

To obtain the desired stage of growth, it may be necessary to apply this product alone in the late summer or fall and then follow with a label-approved, seeding weed-control program at planting.

DISE OF THESE TAME MIXTURES FOR BERMUDAGRASS ON JOHNSONGRASS CONTROL IN MINIMUM TILLAGE STITEMS IS NOT RECOMMENDED. For bermudagrass control, follow the instructions under "CONTROL OF PERENNIAL WEEDS" section of this label and then use a label-approved, seeding weed-control program in a minimum tillage or conventional tillage system, for Johnsongrass control, follow instructions under "CONTROL OF PERENNIAL WEEDS" section of this label, and then use a label-approved, seedling weed-control program with conventional tillage.

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PREHARVEST APPLICATIONS

When applied as directed under the conditions described, this product controls annual and personial weeds fixed on this label prior to the harvest of cotton, soybeans, grain surghum (mile), and wheat

For specific rates and application instructions for control of various annual and personnial weeds, see the TWEEDS CONTROLLED section of this label.

This product may be applied by both ground and aerial application equipment DO HOT APPLY MORE THAN I QUART PER ACRE OF THIS PRODUCT BT AIR See the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label for instructions for ground and aerial applications.

MOTE: On not apply to crops grown for seed. Reduction in germination or vigor may occur.

The use of this product for preharvest grain sorghum (mile) is not registered in Latifornia.

SOYBEANS

Apply after pods have set and lost all green color. Allow a minimum of 7 days between application and harvest of saybeans. Care should be taken to avoid excessive seed thatter loss done to ground application equipment.

Do not graze or harvest treated crop for livestock feed within 25 days of last preharvest application.

DO NOT APPLY MORE THAN & QUARTS PER ACRE OF THIS PRODUCT FOR PREHABYEST APPLICATIONS.

COTTON

Broadcast Applications—This product may be applied using either aerial or ground appray regipment. For ground applications with broadcast equipment, apply this product to 10 to 20 gallons of water per acre. For aerial applications, apply this product in 3 to 10 gallons of water per acre.

This product provides weed control and cotton regrowth inhibition when applied prior to the harrest of cotton. Apply 1 to 2 quarts of this product in 3 to 10 gallons of water per aure for cotton regrowth inhibition. Do not apply more than 2 quarts of this product per aure for prehamest applica-

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tions. THE USE OF ADDITIVES FOR PREHARYEST APPLICATION TO COTTON IS PROHIBITED.

This product may be tank mixed with DEF^{TA} 6, Folias^{TA}, or Prep^{TA} to provide additional enhancement of notion leaf drop.

Allow a minimum of 7 days between application and harvest of corton.

Apply after sufficient bolls have developed to produce the desired yield of cotton. Applications made prior to that time could affect maximum yield potential.

Do not feed or graze treated cotton forage or hay following preharvest applications.

GRAIN SORGHUM (MILO)

Make applications at 30% grain moisture or fess and at feast 7 days prior to harrest.

Apply up to 2 quarts of this product per acre.

WHEAT

Apply after the hard-dough stage of grain (30% or less grain moisture) and at least T days prior to harvest.

OO NOT APPLY MORE THAN I QUARY PER ACRE OF THIS PRODUCT FOR PRE-MARYEST APPLICATIONS TO WHEAT.

TREE AND VINE CROPS

This product is recommended for weed control in established groves, vineyards, and orchards, or for site preparation prior to transplanting crops bitted in this section. Applications may be made with boom equipment. CDA shielded sprayers, hand-held and high-volume wands, lances, orchard guns or with wiper applicator equipment, except as directed in this section. See the "APPLICATION COUPMENT AND TECHNIQUES" section of this label for specific information on use of equipment.

When applying this product, refer to the "WEEDS CONTROLLED" section of this label and to specific recommendations to this section for rates to be used.

NOTE

Repeat treatments may be necessary to control weeds originating from underground parts of untreated weeds or from seeds. This product does not provide residual weed control, for subsequent weed control, use repeated applications of this product. Do not apply more than 10.6 quarts of this product per acre per year.

EXTREME CARE MUST BE EXERCISED TO AMOID CONTACT OF HERBICIDE SOLU-TION, SPRAY, DAIFT OR MIST WITH FOLIAGE OR GREEN BARK OF TRUNK BRANCHES, SUCKERS, FRUIT OR OTHER PARTS OF TREES OR TINES. CONTACT OF THIS PRODUCT WITH OTHER THAN MATURED BROWN BARK CAN RESULT IN SERIOUS CROP DAMAGE.

ANOID PAINTING OUT STUMPS WITH THIS PRODUCT AS INJURY RESULTING FROM ROOT GRAFTING MAY OCCUR IN ADJACENT TREES.

Reduced control may result when applications are made to annual or perennial weeds that have been moved, grated or cut and have not been allowed to region to the recommended stage for treatment.

for specific rates of applications and instructions, see the "WEEDS CON-TROLLED" section of this label, and to specific recommendations which follows

MIDDLES MANAGEMENT

FOR ANNUAL WEEDS IN MIDDLES BETWEEN ROWS OF TREE AND VINE CROPS

for circus crops, treat uniformly between trees

Glyfos

Glyfos plus GOAL

This product alone or in mixtures with Goal will control or suppress the annual weeds bited below.

Apply the recommended rates of this product, either alone or in martures with Goal, plus 0.5 to 1 percent nonionic surfactant by spray volume in 3 to 10 gallons of water per acre. Apply when weeds are actively growing and less than 6 inches in height or diameter. If weeds are under drought stress, bringste prior to application. Reduced control may occur if weeds have been mowed prior to application. By to 48 fluid nunces per acre of this product

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may be used to control weeds, which have been moved, are stressed or are growing in dense populations.

WEED SPECIES	MAXIMUM HUGHT/ DUAMETER (INCHES)	RATE P GLYFOS (FLUID OUNCES)	ONNCEZ) COTT , COTT ,
Barley Hordeum rulgue	6	8	
Bluegrass, annual Poz annua			
Barnyardgrass Echinochtea crus-galli	6	12	
Chickweed, common Stellaria media			
Red Maids (ziandrinia ciliata			
Crabgrass Digitaris spp.	6	16	
Fleabane, hairy Conyra bonariensis	}	16 to 32	+ 4 to 16**
Groundsel, common Senetio volgaris	}		
Junglerice Echinochlos colonum			
Lambsquarters, common Chenopodium album			
Pigweed, redroot			
Rocket, London Sisymbrium irio		}	
Ryegrass, common tolium multiflorum			

Shepherd's-purse (ayseli bena-passors		}
Sowthistle, annual Sonthus oleraceus		}
Cheeseweed, common Maiva spp.	3	12 to 32 + 4 to 16
Cheeseweed, common Malva 19p.	6	16 to 32 + 4 to 16
Filaree* Erodium upp.	ļ	}
Horseweed/ Marestail Conyza canadensis		}
Nettle, stinging Unica dinica		[
Purselane, common* Punuksa oleracea		

Suppression on

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STRIPS

FOR ANNUAL AND PERENNIAL WEEDS IN STRIPS
OF TREE AND VINE CROPS

TANK MIXTURES WITH RESIDUAL HERBICIDES

When applied as a tank mixture, this product provides control of the emerged annual weeds and control or suppression of emerged perennial weeds fated in this tabel. The following residual herbicides will provide pre-emergence control of those weeds based in the individual product tabels.

[&]quot;The minimize of this product plus Goal is recommended when weeds are stressed or growing in dense populations.

Glyfos plus GOAL ZXL
Glyfos plus KARMEX™ DF
Glyfos plus KROVAR I
Glyfos plus KROVAR II
Glyfos plus SIMAZINE,
PRINCEP CALIBER 90
Glyfos plus SIMAZINE 4L
Glyfos plus SIMAZINE 80W
Glyfos plus SULICAM™ 80DF
Glyfos plus SULICAM™ AS
Glyfos plus SURFLAN AS
Glyfos plus SURFLAN 75W
Glyfos plus SURFLAN 75W

Glyfos plus SIMAZINE (80W, or 4L, or PRINCEP CALIBER 90) plus SURFLAN (AS or 75W)

Glyfos plus GOAL 2XL plus SURFLAN (AS or 75W) Glyfos plus GOAL 2XL plus SIMAZINE

(80W, or 4L, or PRINCEP CALIBER 90)

Glyfos plus GOAL 2XL plus SURFLAN (AS or 75W) plus SIMAZINE (80W, 4L, or PRINCEP CALIBER 90)

On not apply these tank mixtures in Puerto Rico.

When rank-mixing with residual herbicides, add an agriculturally approved nonionic surfactant at 0.5 to 1 percent by volume of spray solution.

keler to the individual product labels for specific crops, rates, geographical restrictions and precautionary statements.

Read and curefully observe the label claims, cautionary statements, rates and all other information on the labels of all products.

RECOMMENDED RATES

Annual Weeds—Apply 1 to 5 quarts per acre of this product in these tank mistures, the rates at the higher end of the recommended range when weeds are streated, growing in dense populations or are greater than 12 inches tall.

Perennial Weeds—Apply I pint to 5 quarts per 2019 of this product in these tank mixtures to control or suppress perennial weeds. Follow the recommendations in the "WEEDS CONTROLLED" section of this label for stage of growth and application rates for specific perennial weeds.

Glyfos plus GOAL plus SIMAZINE/SURFLAN

This product plus how rates of Goal in 3-way or 4-way mixtures with simatine and/or surflan will provide posternergence control of the weeds listed below.

Refer to the individual simusine and Surflan labels for preemergence rates, weeds controlled, precautionary statements and other important information.

Apply these tank mixtures in 3 to 40 gallions of water. Add 0.5 to 1 percent nonlock surfactant by total spray volume to the spray solution.

Apply 1 to 5 quarts per acre of this product plus 4 to 48 fluid ounces per acre of Goal plus labeled rates of simazine and/or Surflan to control the following weeds:

Barley, wild Hordeum leporinum

Chickweed, common Stellaria media

Binegrass, annual Poa annua

Filaree*
Erodium spp.

Cheeseweed, common Haba spp.

Fleabane, hairy

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Groundsel, common

Horseweed/Marestail Conva canadensis

Nettle, stinging

Rocket, London Ssymbrium irio

Shepherd's-purse Capulla buss-passon

Sowthistle, annual loodus plersons

Pineappleweed
flatricina matricinides

*Use a minimum of 3.5 quarts of this product in these mixtures.

NOTE: This recommendation does not preclude the use of Goal in these mixtures as higher, tabeled rates for preemergence weed control.

PERENNIAL GRASS SUPPRESSION ORCHARD FLOORS

When applied as directed, this product will suppress regetative growth as indicated below.

Bahiagrass

This product will provide algorithment inhibition of seedhead emergence and will suppress vegetative growth for a period of approximately 45 days with a single application and approximately 120 days with sequential applications. Apply this product 4 to 2 weeks after full green-up or after moving to a uniform height of 3 to 4 inches. Applications must be made prior to seedhead emergence. Apply 6 fluid ounces of this product plus 0.5 to 4 percent nominoin surfaceant by total spray volume in 10 to 25 gallots of water new acres.

Sequential applications of this product plus nonionic surfactant may be made at approximately 45-day intervals to extend the period of seedhead and vegerative growth suppression. For continued seedhead suppression, sequential applications must be made prior to seedhead emergence. Apply no more than 2 sequential applications per year. As a first sequential apply a nonion of this product plus nonionic surfactant. A second sequential application of 2 to 4 fluid ounces may be made approximately 45 days after the last application.

Bermudagrass

for berndown, apply 1 to 2 quarts of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 20 gallons of water per acre. Use 1 quart of this product in 3 to 20 gallons of water per acre east of the Rocky Hountains. Use 1 to 2 quarts of this product in 3 to 10 gallons of water per acre wast of the Rocky Hountains. Use this gratuation only if reduction of the bermudagrasa stand can be tolerated. When burndown is required prior to harvest, allow at least 21 days to ensure sufficient time for burndown to occur.

Suppression only (east of the Rocky Mountains)—Apply 6 to 16 fluid ounces of this product plus 0.5 to 1 percent nonionic surfacturity sotal spray volume in 3 to 20 gallons of water per acre no sooner than 1 to 2 weeks after full green-up. Howing prior to application may occur provided a minimum height of 3 inches is maintained. Rates of 6 to 10 fluid ounces of this product plus nonionic surfactant should be used in thaded conditions or where a lesser degree of suppression is desired. Sequential applications may be made when regrowth occurs and bermudagrass injury and stand reduction can be tolerated.

Suppression only (west of the Rocky Mountains)—Apply 16 fluid ounces of this product plus 0.5 to 1 percent nonionic surfaction by total pray volume in 1 to 10 gallons of water per acre to bermudagrass up to 6 inches in height and no sponer than 1 to 2 weeks after full greenous, Howing prior to application may occur provided a minimum height of 3 inches is maintained. Sequential application may be made when regrowth occur and bermudagrass injury and stand reduction can be tolerated.

Cool Season Grass Covers

for suppression of tall fescue, fine fescue, orchardgrass and quackgrass, apply 8 fluid ounces of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 10 to 20 gallons of water per acre. For best suppression, add ammonium sulface to the ipray solution at a rate of 2 percent by weight or 17 pounds per 100 gallons of spray solution.

for suppression of Renticky bluegrass covers, apply 6 fluid ounces of this product plus 0.5 to 8 percent nonlooks surfactant. On not add ammonium sufface,

for best results, now cook-season grass corers in the spring to even their height and apply the recommended rate of this product 3 to 4 days after moving. Avail creating cool season grass covers under poor growing conditions, such as drought times (drip irrigation), disease or insert damage.

LOW VOLUME APPLICATION (FLORIDA AND TEXAS)

for burndown or control of the weeds listed, apply the recommended rates of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 30 gallons of water per acre. Where weed bliage is dense, use 10 to 30 gallons of water per acre.

Annual Weeds

Goatweed-Apply 2 to 3 quarts per acre of this product plus 17 pounds of ammonium sulfate per 100 gallons of water plus 0.5 to 1 percent nonionic surfactant by total spray volume. Apply in 20 to 30 gallent of water per acre when plants are actively growing. Use 2 quarts per acre when plants are less than 8 inches tall and 3 quarts per acre when plants are greater than 8 inches. If goatweed is greater than 8 inches tall, the addition of Liovar II or Larmer may improve control. Use tabeled rates for these residual products.

Read and carefully observe the label daims, cautionary statements, rates and all other information on the Krovar II- and Karmer labels.

Apply when weeds are actively growing and at the growth stages fisted in the "PERENNIAL WEEDS CONTROLLED" section of this tabel. If perennial weeds are mowed, allow weeds to regrow to the recommended stage of Browntr

S = Suppression PC = Partial control						
WEED	Gyles MIE PER MIN					
171011	l qt	2 qts	3 dzi		_	
Bernudagrass	В	•	Pť	ι		
Geineagrass Texas and Florida Aidge	9	(c	(
Harida Harwoods	•	В	C	C		
Paragrasi Torpedograsi	B \$	•	(PC	((

TREE CROPS

Citrus*****: calamondin, chironja, citron, grapefruit, kumquat, lemon, time, mandarin orange, orange, purimelo, tangelo, tangerine, tangors.

Nuits**: almond, beechnut, Brazil not, butternut, cashew, chestnuts, chinquapin, filbert, basel not, bickory not, macadamia, pecan, pistachio, walnut.

Pome Fruit**** apple, loquat, mayhaw, pear, quince.

Stone Fruit***: apricots, cherries, necturines, plives, peaches,

for cherries, any application equipment listed in this section may be used in all states.

for citron and olives, apply as a directed spray only,

Any application equipment listed in this section may be used in apricets, nectarines, peaches and plums/prenes growing in Aritana, California, Colorado, Idaho, Lanas, Lentucky, New Jersey, North Oakora, Oldahoma, Oregon, Texas, Utah and Washington, except for peaches grown in the states specified in the following paragraph. In all other states use wiper equipment only.

for PEACHES grown in Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina and Tennessee only, apply with a stielded boom sprayer or shielded wiper applicator, which prevents any contact of this product with the foliage or bank of trees. Apply no later than 90 days after first bloom. Applications made after this time may result in severe damage. Remove suckers and low-hanging limbs at least 10 days prior to application. Avoid applications near trees with recent pruning wounds or other mechanical injury. Apply only near trees which have been planted in the orchard for 2 or more years. EXTREMS CARE MUST BE TAXEN TO ENSURE HO PART OF THE PEACH TREE IS CONTACTED.

Tropical Fruit: acerola", atemoya", avocado", banana"****, breadfruit", canistel", carambola", cherimoya", cocoa beans", coffee""", dates", figs. graip. guara. ; jaboticaba. jackfruit, kongan. lychee. mango, mayhaw. papaya. ; passion fruit, persimmons. plantains. pomegranate, sapodilla, sapote, soursop, sugar apple, tamarind. tea". In coffee and banana, delay applications I months after transplanting to allow the new coffee or banana plant to become established.

THE REPORT OF THE PARTY OF THE

NOTE:

- "Aflow a minimum of 14 days between last application and barvest.
- **Allow a missimum of 3 days between last application and harvest of these tropa, except pistactio nots, for paractio outs allow a minimum of 25 days between tast application and harvest.
- ****Allow a minimum of 17 days between last application and harvest.
- ****Allow a minimum of 18 days between last application and harvest.
- """Allow a minimum of 6 day between last application and harvest.

VINE CROPS

Kiwi Fruit

Grapes: Any rariety of table, wine or raisin grape may be created with any equipment forted in this section.

Applications should not be made when green shoots, canes, or foliage are in the spray zone.

Allow a minimum of 14 days between last application and harvest.

In the northeast and Great Lakes regions, applications must be made prior to the end of bloom stage of grapes to avoid injury.

Robet, Lauss, Laries, Price-Freis, and Parton are registered trademarks of Humanus Company, Compy, Diarras, Euron, Graini, Lyrons, Newton, Lyrons, Lyron, Pan, Once, Province, and Inter, are trademarks of El. duffest de Remons and Company.

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Senter and Turbs are tradecuries of Bayes Ali.

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Proof, Person Person Pers, Vaguer and Inqualment are tradecounts of Assertica Cymannid Compa.

Lacrocard is a modernant of INC Conservation.

OLF is a profession of Roboy Chemical Company.

Remaind is a condensate of Daine Cartain Agricultural Products.

Time-Tailer is a crademank of Waldress Specialities, lac.

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This product is protected by U.S. Patent No. 4,405,531.
Other patents pending.
No license granted under any non-U.S. patent(s).

EPA Reg. No. 524-445-4787

©CHEMINOVA AGRO 1998

Manufactured for CHEMINOVA AGRO A/S - Lemvig - Denmark

Authorized Representative:
Cheminova, Inc.
Oak Hill Park
1700 Route 23, Suite 210

Wayne, NJ 07470

Presse read instructions of	on reverse before completing form.	Form	Approved. OMB No. 2070-00	60. Approval expires 2-2
\$EPA	United States Environmental Protection Washington, DC 20-	• •	Registration Amendment Other	OPP Identifier Number
h,,,,,,	Application	on for Pesticide - S	ection (
1. Company/Product Num	nber 524-445	2. EPA Product Mr. Jame	s Tompkins	Proposed Classification
4. Company/Product (Nar Ro	no) undup Original Herbicide	PM# 25		
Monsanto C 700 14th S	Applicant (Include ZIP Code) ompany treet, N.W., Suite 1100 , DC 20005	(b)(i), my produ to:	Reveiw. In accordance wit uct is similar or identical in c	composition and labeling
Check if	this is a new address	Product:Nam	ne	
······		Section - II		-
·	esponse to Agency letter dated	Agency *Me To	oo" Application.	-Apr-92
Notification - Expl	ein below.	Other -	Explain below.	
Submission	of final printed supple	emental label Section - III		
1. Material This Product	Will Be Packaged In:	,	······································	······································
Child-Resistant Packagin Yes No	yes No	Water Soluble Packaging Yes No	Metel Plasti Glass	c
Certification must submitted	If "Yes" No. per Unit Packaging wgt. container	If "Yes" No. Package wgt cont	Pot	(Specify)
3. Location of Net Conte	nts Information 4. Size(s) Re	etail Container	5. Location of Label Direc	tions
6. Manner in Which Labe		greph r glued ciled	D. Urigir	<u> </u>
1 ±		Section - IV		-
1. Contact Point (Compl	ete items directly below for identificati	ion of individual to be contac	cted, if necessary, to process to	his application.)
Name (Rvssell P.	Schneider, Ph.D.	Tida Agricultura Director		one No. (Include Area Cod 2) 763-2460
I certify that the st I acknowledge tha both under applica	Certific stements I have made on this form an t any knowlingly false or misleading st ble law.	d all attachments thereto are	e true, accurate and complete. by fine or imprisonment or	E. Datc Application: Received (Stamped)
2. Signature	Metal	3. Tide Manager, R	Registrations	• • • •
4. Typed Name Step	then J. Wratten, Ph.D.	5. Date March	12, 1998	57,

PAPERMORK REDUCTION ACT, MOTICE and INSTRUCTIONS

PAPERMORK REDUCTION ACT NOTICE: Public reporting burden for this collection of information is estimated to everage 0.85 hour per response, including time for reviewing instructions, sourching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send community regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to third, Information Policy Branch, PM-223, U.S. Environmental Protection Agency, 401 M Street, SW, Mashington, DC 20460; and to the Office of Information and Regulatory Affairs, Office of Resignment and Budget, Mashington, DC 20503.

INSTRUCTIONS: This form is to be used for all applications for new registration, and use reregistration, amendment, resubmission, to applications for notifications, final printed Labeling, reregistration, etc. In order to process an application for a new registration submitted on this form, the following material must accompany the application:

1. Certification with Respect to Citation of Data (EPA Form 8570-29). [If not exempted by 40 CFR 152.81 (b) (4)];

2. Confidential Statement of Formula (EPA Form 2570-4);

3. Formulator's Exemption Statement (EPA Form 8570-27);

4. Five copies of draft labeling;
5. Three copies of any data submitted;

6. Authorization letter where applicable;

7. Matrices where applicable.

Submission of Labeling - Labeling should first be authoritted in the form of druft labels with all applications for new registration. Such draft labels may be in the form of typed label text on 8.5 x 11 inch paper or a workup of the proposed label. If prepared as a mockup, it should be constructed in such a way as to facilitate storage in an 8.5 x 11 inch file. Mockup labels significantly smaller than 8.5 x 11 inches should be mounted on 8.5 x 11 inch paper for submission. Submission of Data - Data submitted in support of this application must be submitted in accordance with PR Notice 86-5.

SPECIFIC INSTRUCTIONS: Please read the instructions listed below before completing this application. First determine the type of registration action, listed in Black A, for which you are submitting this application. For applications submitted in connection with New Registration actions, Sections I, III, and IV must be completed by the applicant. For applications submitted in connection with amended registration actions, resubmissions, notifications, reregistrations, etc., Sections 1, 11, and IV must be completed by the applicant. Block A - Check the appropriate action for which you are submitting this form.

SECTION I - This section must be completed, as applicable, for all registration actions.

- 1. Company/Product Number Insert your Company Number, if one has been assigned by EPA. This number may have been assigned to you as a basic registrant, a distributor, or as an establishment. If your product is registered, insert the Product Humber,
- 2. EPA Product Nameger If known, fill in the name and PM number of the EPA Product Ranager.

3. Proposed Classification - Specify the proposed classification of this product.

- 4. Product Name Enter the complete product name of this pesticide as it will appear on the tabel. The name must be specific to this product only. Duplication of names is not permitted among products of the same company. Do not include any brand name or company line designations.

 5. Hame and Address of Applicant - The name of the firm or person and address shown in your application is the person or firm
- to whom the registration will be issued. If you are acting in behalf of another party, you must submit authorization from " that party to act for them in registration matters. An applicant not residing in the United States must have an authorized agent residing in the United States to act for them in all registration matters. The name and complete milling address of such an agent must accompany this application.
- 6. Expedited Review FIFRA section 3 (c) 3 (B) provides for expedited review of applications for registration, or emendments to existing registrations, that are similar or identical to other pesticide products that are currently registered with the EPA. In order for your application to be eligible for expedited review, you must provide us with the EPA Registration Number and product name of the product you believe is similar to or identical to your product. The product must be as a similar or identical in both formulation and labeled uses.

SECTION II - This section must be completed for all applications, submitted to amond the registration only of a currently registered product (Amendment), for a resultaission in response to an Agency letter, for notifications to the Agency, for the submission of final printed labeling, for reregistration and for any other action that pertains to a specific EPA-registered product. This section is not to be used for a new application for registration.

1. Subject of submission - Check the applicable block and provide the Agency Tetter date if appropriate. Provide a brief explanation of the purpose(s) for the submission, such as "the addition of a site, pest or crop (specify)"; "smend the Confidential-Statement of Formula by..."; "reregistration adminsion"; general label revision of use directions." "Attach No continue a separate page if additional space is needed.

SECTION III (Fackaging and Container Information) - This Section must be completed for all applications submittedgin connection with new registration or applicable assessments.

Type of Packaging - Check the appropriate block if your product will be packaged in the indicated packaging types.
 Indicate the size of the individual packets and number per retail container.
 Type of Retail Container - indicate type of container in which product will be marketed.

- 3. Location of Bet Contenus Specify the net contents of all retail containers for your product.
- 4. Size(s) of Bathil Container. Specify the net contents of all retail containers for your product.
 5. Location of the Directions: Indicate the location of the use directions for your product.

March 10. 191

6. Remain in which label is affixed to product - indicate the method product label is attached to retail container.

SECTION IV (Contact Point) - This Section must be completed for all applications for Registration actions, i.e., and it is new products registration, resultaission, "an-too," reregistration, etc...

- 1-5. Self-explanatory. 6. EPA Use Only.

15. Date

A Form 8570-1-(Rev. 3-84) Previous editions are obsolete.



MONSANTO COMPANY

800 NORTH LINDBERGH BOULEVARD

ST. LOUIS, MISSOURI 63:67

PHONE (3:4) 694-1000

http://www.monsanto.com

March 12, 1998

Hand Delivered

Office of Pesticide Programs
Document Processing Center (NOTIF)
U.S. Environmental Protection Agency
Room 266A, Crystal Mall #2
1921 Jefferson Davis Highway
Arlington, VA 22202

Attention:

Mr. James A. Tompkins (7505C)

Team Leader (25)

Subject:

Roundup Original Herbicide (EPA Reg. No. 524-445)

Supplemental Label for Forestry and Rights of Way

Dear Mr. Tompkins:

Enclosed please find five (5) copies of a Final Printed Label for Roundup Original Herbicide covering the uses in forestry and utility rights of way. As you recall, Roundup Original Herbicide is a recent additional brand name under the 524-445 registration number.. The text of the enclosed label was approved 2-Apr-92 under the Roundup Herbicide brand name (see enclosed copy). Monsanto desires to extend these uses to the Roundup Original Herbicide brand name in 1998.

If you have any questions on this matter please feel free to contact me through Dr. Russell P. Schneider or directly at 314-694-1582.

Sincerely,

Stephen J. Wratten

Manager, Registrations

CC.

R. P. Schneider

D. Fee-White

N. Jackson

B. Carey

SUPPLEMENTAL LABELING

READ AND FOLLOW THE ENTIRE LABEL FOR ROUNDUP ORIGINAL™ HERBI-CIDE BEFORE PROCEEDING WITH THE USE DIRECTIONS CONTAINED IN THIS SUPPLEMENTAL LABELING.

"Label" as used in this supplemental labeling refers to the label booklet for Roundup Original herbicide and this supplement.



In Mccordance with PR Notice BE-E.

EPA Reg. No. 524-445

ROUNDUP ORIGINAL HERBICIDE FOR FORESTRY AND UTILITY RIGHTS-OF-WAY.

Keep out of reach of children. WARNING!

In case of an emergency involving this product, Call Collect, day or night, (314) 694-4000.

Roundup Original is a trademark of Monsanto Company.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in any manner inconsistent with the labeling.

This label must be in the possession of the "user at the time of the herbicide application:

FORESTRY AND UTILITY RIGHTS-OF-WAY

Sees GENERAL INFORMATION" and "MIXING ADDITIVES and APPLICATION INSTRUCTIONS" sections of the label booklet for Roundup Original herbicide for essential product performance information.

EXTREME CARE MUST BE EXERCISED TO AVOID CONTACT OF SPRAY WITH FOLIAGE OF DESIRABLE TURFGRASSES, TREES, SHRUBS, OR OTHER DESIRABLE VEGETATION SINCE SEVERE OAMAGE OR DESTRUCTION MAY RESULT.

NOTE: If spraying areas adjacent to desirable plants, use a shield made of cardboard, sheet metal or plyboard while spraying to help prevent spray from contacting foliage of desirable plants.

Repeat treatments may be necessary to control weeds regenerating from underground parts or seeds.

Read and carefully observe the tabel claims, cautionary statements and all information on the labels of each product used. Use according to the most restrictive label directions for each product used in recommended tank mixtures.

NOTE: NOT RECOMMENDED FOR USE AS AN OVER-THE-TOP BROADCAST SPRAY IN SILVI-CULTURAL NURSERIES, OR CHRISTMAS TREE PLANTATIONS.

For specific rates of application and instructions for control of various brush, annual and perennial weeds, see the "WEEDS CONTROLLED" section of the label booklet for Roundup Original herbicide. For specific rates of application for release of listed coniferous species, see the "CONFER RELEASE" part of this section of the label.

Where repeat applications are necessary, do not exceed 10.6 quarts of this oroduct per acre per year.

Arrial Application

This produce may be applied using aerial spray equipment for silvicultural site preparation, confer release and rights-of-way treatments. See the "APPLICATION EQUIPMENT and TECHNIQUES" part of the "MIXING, ADDITIVES and APPLICATION INSTRUCTIONS" section of the tabel booklet for Roundup Original herbicide for information on how for properly spray this product by air.

DO NOT APPLY THIS PRODUCT BY AIR TO RIGHTS-OF-WAY SITES IN THE STATE OF CALIFORNIA.

In order to reduce the aerial application drift hazard to aquatic sites", to nontarget sites, or any site containing desirable vegetation. always maintain appropriate buffer zones. A buffer zone of the following minimum distances should be maintained:

- Helicopters using a Microfoil™ boom, a Thru-Valve™ boom (TVB-45), or equivalent drift control systems, should maintain at least a 50-foot bufter zone.
- · When using other aerial equipment:
 - 1. Maintain at least a 75-foot buffer zone for applications using 2 quarts or less per acre of this product.
- 2. Maintain at least a 125-foot buffer zone for application using more than 2 quarts per acre of this product.
- 3. Maintain at least a 400-foot buffer zone for applications on rights-of-way when applied from 75 feet or more above ground level.

These distances should be increased if conditions favoring drift exist.

Aquatic sites include all lakes, ponds and streams used for significant domestic purposes or analing.

Microfoil is a trademark of Union Carbide Agricultural Products, Inc.

Thru-Valve is trademark of Waldrum Specialties, Inc.

'SITE PREPARATION

Following preplant applications of this product. any silvicultural species may be planted.

PDSTDIRECTEO SPRAY

In established silvicultural sites, use as a spray on the foliage of undesirable vegetation. Care must be exercised to avoid contact of spray. driff or mist with foliage or green bank of desirable species.

4 CONIFER RELEASE

For release, apply only where coniters have been established for more than one year. ₹Vegetation should not be disturbed prior to treatment or until visual symptoms appear after treatment. Symptoms of treatment are slow to appear, especially in woody species treated in late fall. Injury may occur to conifers treated for release, especially where spray patterns overlap or the higher rates are applied or whee applications are made during periods of actige conifer growth. Do not use additional surfactant with conifer release applications.

Applications must be made after formation of final conifer resting buds in the fall or prior to initial bud swelling in spring. Some autumn colors on undesirable deciduous species are acceptable provided no major leaf drop has occurred. Use the following rates for conifer

Barrier Britania

release to control or partially control the weeds listed in the "WEEDS CONTROLLED" section of the label booklet for Roundup Original her-

For release of the following conifer species: Douglas fir Pines*

Pseudotsuga menziesii Pinus spp.

Fir Abies spp. Spruce Picea spp.

Hemlock

Tsuga spp.

* Includes all species except eastern white pine, lobfolly pine or stash pine.

Apply 1-1/2 to 2 quarts of this product per acre except in Washington and Oregon, west of the crest of the Cascade Mountains. For spring treatments west of the crest of the Cascade Mountains, apply 1 quart of this product per acre before conifer bud swell for control of annual weeds. For fall treatments in Washington and Oregon, west of the crest of the Cascade Mountains, apply 1 to 1-1/2 quarts of this product per acre before any major leaf drop of deciduous species.

For release of western hemlock apply 1 quart of this product per acre.

For release of the following conifer species: Slash pine Lobiolly pine

Pinus taeda

Pinus elliottii

Eastern white pine

Pinus strobus

Late Season Application—Apply 1-1/2 to 2 quarts of this product in a minimum of 5 gallons of spray solution per acre during early autumn. Applications made prior to September 1 or when conditions are conducive to rapid growth of coniters will result in potential for increased injury in the form of tip and/or needle burn. Injury may decrease with later applications. Some autumn colors are acceptable at time of application. Apply prior to trost or leaf drop of undesirable plants. Applications made according to label direction will release toblolly pine, eastern white pine and stash pine by reducing competition from the following species:

Ash

Fraxinus spp.

Cherry: .

Black

Prunus serotina

Pin

Prunus pensylvanica

Elm

Ulmus spp.

Hawthorn

Crataegus spp.

Persimmon

Diospyros spp.

Poplar, yellow

Liriodendron tulipfera

Sassairas

Sassatras albidum

Sourwood

Oxydendrum

arboreum

Locust, black Robina pseudoacacia

Maple, red

Acer rubra

Ωak:

Black

Quercus velutina

Post

Quercus stellata

Southern Red

Quercus falcata

White

Quercus alba

Apply only to those sites where woody brush and trees listed in this label constitute the majority of the undesirable species.

Sumac:

Poison

Smooth

Winged

Sweetgum

Liquidambar

styraciflua

Rhus vernix

Rhus glabra

Rhus copallina

ROUNDUP ORIGINAL plus Oust** TANK MIXTURES FOR CONIFER RELEASE FROM HERBACEOUS WEEDS

To release toblotly pines from herbaceous weeds, tank mixtures of this product with Obst will provide control of annual weeds listed in the "WEEDS CONTROLLEO" section of the tabel booklet for Roundup Original herbicide and the Oust label, and partial control of the perennial weeds listed below.

Apply 16 to 24 fluid ounces of Roundup Original herbicide with 2 to 4 ounces of Oust in 10 to 30 gallons of spray solution per acre. Make application to actively growing weeds as a broadcast spray over the top of the young loblolly pines.

This tank mixture may be applied using aerial equipment. When applying by air, use the recommended rate in 5 to 15 gallons of spray solution per acre.

For control of annual weeds below 12 inches in height (or runner length on annual vines), use the low rates of both products. Use the higher rates of both products when annual weeds are in more advanced stages of growth and approaching flower or seed formation.

Use the higher rates of both products for partial control of the following perennial weeds. Use the lower rates for suppression of growth.

Bahiagrass

Paspalum notatum

Broomsedge

Andropogen virginicus

Dock, curly

Rumex crisqua

Doglennel

Eupatorium.

capilliforium:

Fescue, tali

Festuca arundinacea

Vaseygrass Paspalum urvillei

"*zzsrpnognass*

haiepense

Diodia teres

Trumpetcreeper*

Canipsis radicans

Sorahum

Poorjoe**

Vervein, blue Verbena hastata

*Suppression at the higher rates only.

**Control at the higher rates.

Pine damage may occur or can be accentuated if treatment takes place when young trees are under stress from drought, flood water, insects or disease.

Oust is a trademark of E.I. duPont de Nemours and Company.

NOTE TO USER

This product must not be used in areas where adverse impact on Federally designated endangered/threatened plant or aquatic species is

Prior to making applications, the user of this of this product must determine that no such species are located in or immediately adjacent to the area to be treated.

CUT STUMP TREATMENTS

Woody vegetation may be controlled by treating freshly cut stumps of trees and resprouts with this product. Apply this product using suitable equipment to ensure coverage of the entire cambium. Cut vegetation close to the soil surface. Apply a 50 to 100 percent solution of this product to the freshly cut surface imme-& diately after cutting. Delays in application may result in reduced performance. For best results, applications should be made during speriods of active growth and full leaf expan-

When used according to directions for cut stump application, this product will CONTROL, PARTIALLY CONTROL or SUPPRESS many types of woody brush and tree species, some of which are listed below:

Saltcedar
Tamarisk spp.
Sweetgum
Liquidambar
styraciflua
Tan Oak
Lithocarpus
densiflorus
Willow
Salix spp.

INJECTION AND FRILL APPLICATIONS

Woody vegetation may be controlled by injection or frill application of this product. Apply this product using suitable equipment which must penetrate into the living tissue. Apply the equivalent of 1 ml of this product per each 2 to 3 Letches of trunk diameter. This is best achieved by applying a 50 to 100 percent concentration of this material either to a continuou's frill around the tree or as cuts evenly spaced around the tree below all branches. As tree diameter increases in size, better results are achieved by applying diluted material to a continuous frill or more closely spaced cuttings. Avoid application techniques that allow runoff to occur from frill or cut areas in species

that exude sap freely after frills or cutting. In species such as this, make frill or cut at an oblique angle so as to produce a cupping effect and use undiluted material. For best results, application should be made during periods of active growth and after full leaf expansion.

This treatment WILL CONTROL the following woody species:

Oak

Quercus spp. Poplar

Populus spp.

Sweetgum Liquidambar stvraciflua Sycamore

Platanus occidentalis

This treatment WILL SUPPRESS the following woody species:

Black gum

Nyssa sylvatica Dogwood

Hickory Carya spp. Maple, red

Cornus spp.

Acer rubrum

TANK MIXTURES FOR FORESTRY SITE PREPARATIONS

ROUNDUP ORIGINAL plus OUST

This tank mixture may also be used as a site preparation treatment for sites to be planted to jack pine, loblolly pine, red pine, stash pine and Virginia pine.

When applied as directed, this product plus Oust provides control of annual weeds listed in the "WEEDS CONTROLLED" section of the label booklet for Roundup Original herbicide and Oust, and control or partial control of the perennial weeds listed below.

Apply 1 to 2 quarts of this product with 2 to 4 ounces of Oust in 10 to 40 gallons of spray solution per acre as a broadcast spray to actively growing weeds.

This mixture may be applied by aerial equipment in site prep operations. When applied by air, use the recommended rates in 5 to 15 gallons of spray solution per acre.

For control of annual weeds, use the lower rates of these products.

For control of the listed perennial weeds, use the higher rates of both products. For partial control, use the lower rates.

Bahiagrass

Johnsongrass**

Paspalum notatum Bermudagrass*

Cynodon dactylon

Broomsedge Andropogon virginicus

Dock, curly Rumex crispus

Dogfennel Eupatorium

capilliforium Fescue, tall

Festuca arundinacea

Sorghum halepense

Poorjoe** Diodia teres Quackgrass

Agropyron repens Trumpetcreeper*

Campsis radicans Vaseygrass

Paspalum urvillei Vervain, blue Verbena hastata

- *Suppression at the higher rates only.
- **Control at the lower rates.

When used in combination as recommended by Monsanto Company, the liability of Monsanto shall in no manner extend to any damage, loss or injury not directly caused by the inclusion of the Monsanto products in such combination use.

Read the "LIMIT OF WARRANTY AND LIABILI-TY in the label booklet for Roundup Original herbicide before using this product. Those terms apply to this supplemental labeling and, if those terms are not acceptable, return the product unopened at once.

@MONSANTO COMPANY 1998

MONSANTO COMPANY ST. LOUIS, MISSOURI, 63167 U.S.A.

21154W1-26

2/2/98

MAR 27 1998

Ms. Annette M. Kirk Monsanto Company 700 14th Street, N.W., Suite #1100 Washington, D.C. 20005

Dear Ms. Kirk:

Subject: Roundup Original Herbicide (Update Label for Postemergence Applications to Roundup Ready Soybeans)
EPA Registration No. 524-445
Your Application Dated March 4, 1998

'The labeling referred to above submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act as amended is acceptable. Please submit three (3) copies of your final printed labels before you release the product for shipment. A stamped copy of labeling is enclosed for your records.

Sincerely,

James A. Tompkins for Product Manager 25
Herbicide Branch
Registration Division (7505C).

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Please read instructions on reverse before completing form.			Form Appro	ved. OMB	No. 2070	-0060	Approva	l expires 05-31		
SEPA Environmental Protection Agend Washington, DC 20460			Regis Amen Other							
Application	on for P	esticid	e - Sect	ion I						
1. Company/Product Number 524-445	2. EPA Product Man Mr. James To						roposed Classification			
4. Company/Product (Name) Roundup Original Herbicide			PM# 25					Restricts		
5. Name and Address of Applicant (Include ZIP Code) Monsanto Company 700 14th Street, N.W., Suite 1100 Washington, DC 20005 Check if this is a new address			6. Expedited Review. In accordance with FIFRA Section 3(c)(3) (b)(i), my product is similar or identical in composition and labeling to: EPA Reg. No.							
	Soot	Production - II	t Name _							
Amendment - Explain below. Resubmission in response to Agency letter deted Notification - Explain below. Explanation: Use additional page(s) if necessary. (For section Submission of a new supplemental lewith the Roundup Ready Gene			Final printed Agency lette "Me Too" A Other - Expt temergen	ar dated pplication. Bin below.		;	soyb	eans		
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Material This Product Will Be Packaged In:	Sect	ion - #								
Child-Resistant Packaging Yes No No * Certification must be submitted Unit Packaging Yes No. per container	II "Yes Packag	a wigt	No. per container		P	Aetel Testic iless 'eper Other (S				
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Certification is a calculated and the statements I have made on this form and I acknowledge that any knowingly false or misleading stated both under applicable law.	d all artach	ments the	reto are true shable by fin	o, accurate o e or impriso	and compl	8(0.	Recei	Application ved. (tamped)		
2. Signature Ametto M. Tiefe	3. Tiue Regi	strat	ion Mana	ger	. ,					
4. Typed Name Annette M. Kirk	5. Date	Mary	h 4, 19	98	<u> </u>	-		00 146 99 <u>.</u> 00 146 99 <u>.</u>		
EPA Form 8570-1 (Rev. 8-94) Previous editions are obsolete.			Wh	te - EPA File	Copy (o	riginal)	Yello	w - Applicant		

PAPERWORK REDUCTION ACT NOTICE and INSTRUCTIONS

PAPERWORK REDUCTION ACT NOTICE: Public reporting burden for this collection of information is estimated to everage 0.85 hour per asponse, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and eviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including uggestions for reducing this burden, to Chief, Information Policy Branch, (2136), U.S. Environmental Protection Agency, 401 M Street, SW, Vashington, DC 20460.

NSTRUCTIONS: This form is to be used for all applications for new registration, and use reregistration, amendment, resubmission, to applications or notifications, final printed labeling, reregistration, etc. In order to process an application for a new registration submitted on this form, the ollowing material must accompany the application:

- 1. Certification with Respect to Citation of Data (EPA Form 8570-29). [If not exempted by 40 CFR 152.81 (b) (4)];
- 2. Confidential Statement of Formula (EPA Form 8570-4);

as a later of the contraction

- 3. Formulator's Exemption Statement (EPA Form 8570-27);
- 4. Five copies of draft labeling;
- 5. Three copies of any date submitted;
- 5. Authorization letter where applicable;
- Matrices where applicable.

ubmission of Labeling - Labeling should first be submitted in the form of draft labels with all applications for new registration. Such draft labels may be a the form of typed label text on 8.5 x 11 inch paper for submission or a mockup of the proposed label. If prepared for mockup, it should be constructed in a way as to facilitate storage in an 8.5 x 11 inch file. Mockup labels significantly smaller than 8.5 x 11 inches should be mounted on 8.5 to 11 inch paper for submission.

ubmission of Data - Data submitted in support of this application must be submitted in accordance with PR Notice 86-5...

iPECIFIC INSTRUCTIONS: Please read the instructions listed below before completing this application. First determine the type of registration ction, listed in Block A, for which you are submitting this application. For applications submitted in connection with New Registration actions, Sections III, and IV must be completed by the applicant. For applications submitted in connection with amended reregistration actions, resubmissions, outfications, reregistrations, etc., Sections I, II, and IV must be completed by the applicant. lock A -ICheck the appropriate action for which you are submitting this form.

ECTION I - This section must be completed, as applicable, for all registration actions.

Company/Product Number - Insert your Company Number, if one has been assigned by EPA. This number may have been assigned to you as a basic registrent, a distributor, or as an establishment. If your product is registered, insert the Product Number.

EPA Product Manager - If known, fill in the name and PM number of the EPA Product Manager, Annual PM number of the EPA Product Manager of the EPA Product Ma

Proposed Classification - Specify the proposed classification of this product.

Product Name Enter the complete product name of this pesticide as it will appear on the label. The name must be specific to this product only.

Duplication of names is not permitted among products of the same company. Do not include any brand name or company line designations.

Name and Address of Applicants: The name of the firm or person and address shown in your application is the person or firm to whom the extreme registration will be issued. If you are acting in behalf of another party, you must submit authorization from that party to act for them in registration metters. An applicant not residing in the United States must have an authorized agent residing in the United States to act for them in all registration matters. The name and complete mailing address of such an agent must accompany this application.

Expedited Review - FIFRA section 3-(c) 3 (B) provides for expedited review of applications for registration, or amendments to existing registration that are similar or identical to other pesticide products that are currently registered with the EPA. In order for your application to be eligible for expedited review, you must provide us with the EPA Registration Number and product name of the product you believe is similar to or identical to your product. The product must be similar or identical in both formulation and labeled uses.

ECTION II - This section must be completed for all applications submitted to amend the registration only of a currently registered product Amendment), for a resubmission in response to an Agency letter, for notifications to the Agency, for the submission of final printed labeling, for pregistration and for any other action that pertains to a specific EPA-registered product. This section is not to be used for a new application for registration.

Subject of submission. Check the applicable block and provide the Agency letter date if appropriate. Provide a brief explanation of the purpose(s) for the submission, such as "the addition of a site, pest or crop (specify)"; "amend the Confidential Statement of Formula by..."; "raregistration "submission"; "general label revision of use directions." Attach a separate page if additional space is needed.

ECTION: III (Packaging and Container Information) - This Section must be completed for all applications submitted in connection with new igistration of applicable amendments.

- Type of Packaging Check the appropriate block if your product will be packaged in the indicated packaging types.
- Indicate the size of the individual packets and number per retail container;
- Type of stal Container Indicate type of container in which product will be marketed.
- Location of Net Contents Indicate the location of the net contents information for your product.
- Size(s) of Retail Container Specify the net contents of all retail containers for your product.
- Location of Use Directions Indicate the location of the use directions for your product.

 Manner in which [abel is affixed to product] Indicated the method product label is attached to retail container.

ECTION IV (Contact Point) - This Section must be completed for all applications for Registration actions, i.e., new products registration, submission, "me-too," (eregistration, etc.

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United States Environmental Protection Agency Washington, DC 20460 /

Form Approved
OMB No. 2070-0060
Approval Expires 11-30-93

SFPA Cartification with Re-

nts Name and Address	EPA F#	ile Symbol/Registration Number 524-445				
Monsanto Company 700 14th Street, N.W.,	Suite 1100 Produc	Product Name				
Washington, DC 20005	501 CE 1100	Roundup Original Herbici	de			
	Oate of	March 4, 1998				
NOTE: If your product is a 1 is labeled for the same uses, you Exemption Statement (EPA Fort	do not need to submit this for	EPA-registered product that you purchase, orm. You must submit the Formulator's	and			
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Name and Title

Date

³A Form 8570-29 (Rev-7-91)

Signature



Monsanto

Monsanto Company Suite 1100 700 14th Street, N.W. Washington, D.C. 20005

March 4, 1998

Hand Delivered

Office of Pesticide Programs
Document Processing Center (AMEND)
U.S. Environmental Protection Agency
Room 266A, Crystal Mall #2
1921 Jefferson Davis Highway
Arlington, VA 22202

Attention:

Mr. James A. Tompkins (7505C)

Team Leader (25)

Subject:

Roundup Original™ Herbicide; EPA Reg. No. 524-445

Submission of a new Supplemental Label for

Postemergence Applications to Soybeans with the Roundup

Ready® Gene

Dear Mr. Tompkins:

In a letter dated October 15, 1997, Monsanto notified the Agency of a new brand name under EPA Registration No. 524-445, Roundup OriginalTM Herbicide. Monsanto herein submits for approval a new supplemental label for the use of Roundup Original Herbicide over the top of Roundup Ready® Soybeans.

The language in this new supplemental label was created directly from and is essentially identical to the revised supplemental label for the use of Roundup Ultra Herbicide (EPA Reg. No.: 524-475) over Roundup Ready Soybeans, which was approved by the Agency on March 2, 1998. This new label will be used in place of previously approved supplemental labels for Roundup Herbicide (Reg. No. 524-445) over Roundup Ready Soybeans, which are not active and have not been recently printed or used. Our desire is to be consistent with the current language in the recently approved Roundup Ultra supplemental label, thus we have carried over the following approved changes:

- The changes in the application timing instructions to allow application from the cracking throughout the flowering stage.
- The modified crop safety and weed control warranty statements for the use of tank mixtures.
- The combined recommendations for the Mid-Atlantic and Midwest regions.
- The combined recommendations for narrow-row and wide-row soybeans in the Southeast and Delta/Mid-South.
- The addition of an expiration date.
- Under the General Information section, the language has been changed to be advisory and not prohibitory against the use of this product on soybeans which do not contain the Roundup Ready Gene.

The only significant difference in this Roundup Original supplemental label, from the Roundup Ultra supplemental, is the inclusion of a section on the use of additional surfactant. The differences or changes in the text are marked by strikeout, to indicate deletions, and double underline, to indicate additions.

We enclose five (5) copies of the proposed supplemental label for Agency review and approval. An Application for Pesticide Amendment and the Certification with Respect to Citation of Data are also enclosed.

If you have any questions on this matter please feel free to contact me through Dr. Russell P. Schneider or directly at 314-694-8890.

Sincerely,

Annette M. Kirk

Registration Manager

Annett M. Kurp

cc: R. P. Schneider

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SUPPLEMENTAL LABELING

READ THE ENTIRE LABEL FOR ROUNDUP® ORIGINALULTRA HERBICIDE BEFORE PROCEEDING

WITH THE USE DIRECTIONS CONTAINED IN THIS SUPPLEMENTAL LABELING.

CEPTED "Label" as used in this supplemental labeling refers to the label booklet for Roundup Original Ultra, container labels and this supplement.

MAR 27 1998

r the Federal Insecticide ungicide, and Rodenticide Act

Roundup Original Herbicide

EPA Reg. No. 524-445

FOR POSTEMERGENCE APPLICATIONS TO SOYBEANS WITH THE

ROUNDUP READY® GENE

Keep out of reach of children. CAUTION!

In case of an emergency involving this product, Call Collect, day or night, (314) 694-4000.

Roundup® and Roundup Ready® Gene are registered trademarks of Monsanto Company. Roundup Ready® is a trademark of Monsanto Company.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in any manner inconsistent with its

This label must be in the possession of the user at the time of application.

See "GENERAL INFORMATION" and "MIXING, ADDITIVIES AND APPLICATION INSTRUCTIONS" sections of the label booklet for Roundup® Ultra Original herbicide for essential product performance information.

General Information

MONSANTO COMPANY RECOMMENDS USE OF THIS PRODUCT POSTEMERGENCE APPLICATION ONLY ON SOYBEAN VARIETIES DESIGNATED AS CONTAINING THE ROUNDUP READY® GENE.

Applying this product to soybean varieties which are not designated as Roundup Ready® will result in severe crop injury and yield loss. Avoid contact with foliage, green stems, or fruit of crops, or any desirable plants which do not contain the Roundup Ready gene, since severe injury or destruction will result.

Roundup Ready varieties must be purchased from an authorized seed supplier. Crop safety and weed control performance are not warranted by Monsanto when this product is used in conjunction with "brown bag" or "bin run" soybean seed saved from previous year's production and replanted.

The Roundup Ready designation indicates that the soybean contains a patented gene which provides tolerance to Monsanto's Roundup brand herbicides. Information on Roundup Ready soybeans may be obtained from your seed supplier or Monsanto representative.

Application Instructions

This product may be applied postemergence to Roundup Ready soybeans from the cracking stage throughout flowering. Allow a minimum of 14 days between application and harvest of soybeans.

Maximum Allowable Yearly Rates

- Preplant: Maximum amount of this product which can be applied prior to crop emergence is 5 quarts/A.
- In-crop: Maximum combined total of single or multiple in-crop applications from cracking throughout the flowering stage is 3 quarts/A. The maximum rate for any single in-crop application is 2 quarts/A. The maximum combined total of this product which can be applied during flowering is 2 quarts/A.
- Preharvest: Maximum amount of this product that can be applied after loss of green color in soybean pods until 14 days before harvest is 1 quart/A. The maximum rate for any single incrop application is 2 quarts/A. The maximum combined total of this product which can be applied during flowering is 2 quarts/A.
- Cropping Season: Combined total per year for all applications may not exceed 8 quarts/A. When applied as directed, this product will control labeled annual grasses and broadleaf weeds in Roundup Ready soybeans. Many perennial grasses and broadleaf weeds will be controlled or suppressed with one or more applications of this product.

There are no rotational crop restrictions following applications of this product.

<u>For ground applications</u>: Use the recommended rates of this product in 5 to 20 gallons of spray solution per acre as a broadcast spray. Carefully select proper nozzle and spray pressure to avoid spraying a fine mist. For best results with ground application equipment, use nozzles which provide a flat fan pattern. Check for even distribution of spray droplets.

For aerial applications: Use the recommended rates of this product in 3 to 15 gallons of spray solution per acre. Do not exceed 1 quart of this product per acre. DO NOT APPLY DURING LOW LEXEL INVERSION CONDITIONS, WHEN WINDS ARE GUSTY OR UNDER ANY OTHER CONDITIONS WHICH FAVOR DRIFT. DRIFT MAY CAUSE DAMAGE TO ANY VEGETATION CONTACTED TO WHICH TREATMENT IS NOT INTENDED. MAINTAIN APPROPRIATE BUFFER ZONES TO PREVENT INJURY TO ADJACENT DESIRABLE VEGETATION., AERIAL APPLICATIONS ON ROUNDUP READY SOYBEANS, MAY BE MADE ONLY IN THE FOLLOWING STATES: ALABAMA, ARKANSAS, FLORIDA, GEORGIA, KANSAS, LOUISIANA, MISSISSIPPI, MISSOURI (BOOT-HEEL ONLY), NORTH CAROLINA, OKLAHOMA, SOUTH CAROLINA, TENNESSEE AND TEXAS.

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ANNUAL WEED RATE TABLES

The following rate recommendations will provide control of labeled grasses and broadleaf weeds in conventional and no-till soybean production systems. Refer to the label booklet for rate recommendations for specific annual weeds.

Monsanto will not warrant crop safety or weed control when Roundup Ready soybeans are treated with herbicides not specified on this supplemental label. Because of the potential for; 1) crop injury, 2) poor weed control from antagonism, and/or 3) rotational crop restrictions, herbicides not specified on this supplemental label should not be used, whether applied preemergence or applied postemergence as a tank mixture with Roundup Original Ultra.

This product may be used up to 64 fluid ounces per acre in any single application for control of annual weeds, where heavy weed densities exist. The maximum combined total of this product which can be applied during flowering is 2 quarts/A.

NOTE: The following recommendations are based on a clean start at planting by using a burn down application or tillage to control existing weeds before crop emergence. In no-till and stale seedbed systems, a preplant burn-down treatment of 16-64 fluid ounces per acre of this product can be used to control existing weeds prior to crop emergence.

MIDWEST/ MID-ATLANTIC RECOMMENDATIONS

Narrow row or drilled soybeans: A single in-crop application of this product will provide effective control of labeled weeds. For best results, an initial application of 32 fluid ounces per acre (fl oz/A), on 4-8" weeds is recommended. Weeds will generally be 4-8" tall 3 to 5 weeks after planting. If the initial application is delayed and weeds are 8-18" tall, use 48 fl oz/A for best results.

Under adverse growing conditions such as drought, hail, wind damage or a poor soybean stand that slows or delays canopy closure, a sequential application of this product at 16 to 32 fluid ounces per acre may be necessary to control late flushes of weeds. The combined total application in-crop must not exceed 64 fluid ounces per acre.

Wide row soybeans: An in-crop application of this product will provide effective control of the initial stand of labeled weeds. For best results, an initial application of 32 fluid ounces per acre (fl oz/A), on 4-8" weeds is recommended. Weeds will generally be 4-8" tall 3 to 5 weeks after planting. If new flushes of weeds occur, they can be controlled by sequential applications of this product.

	<u> </u>	<u>ent</u>
Weed Height	Rate	
(inches)	(fl oz/A)	
4-8	32	
8-18	48	

Sequential Application (if needed)*

Weed Height	Rate
(inches)	(fl oz/ <u>A</u>)
1-3	16
3-6	24.
6-12	32

*Combined total application in-crop not to exceed 96 fluid ounces per acre.

Giant ragweed: Apply 32 fl oz/A when the weed is 8-12" tall to avoid the need for sequential application.

Groundcherry, ladysthumb, Pennsylvania smartweed and morningglory: Apply 32 fl oz/A to weeds 3-6" tall.

Some weeds, such as black nightshade, woolly cupgrass, shattercane, wild proso millet, burcumber, and giant ragweed, with multiple germination times may require a sequential application of this product. Suppressed or stunted weeds may also require sequential applications. Sequential applications should be made after some regrowth has occurred. Use a minimum of 16 fluid ounces of this product per acre for sequential applications. The combined total of all in-crop postemergence treatments must not exceed 96 fluid ounces per acre.

SOUTHEAST RECOMMENDATIONS

Narrow row, drilled, or wide-row soybeans: An in-crop application of this product will provide effective control of the initial stand of labeled weeds. For best results, an initial application of 32 fluid ounces per acre (fl oz/A), on 3-6" weeds is recommended. Weeds will generally be 3-6" tall 2 to 3 weeks after planting.

Weed Height (inches)	Rate (fl oz/ <u>A</u>)
3-6	32
6-12	48

Under adverse growing conditions such as drought, hail, wind damage or a poor soybean stand that slows or delays canopy closure, a sequential application of this product at 16 to 32 fluid ounces per acre may be necessary to control late flushes of weeds.

>	Sequential Applicat	<u>ion (if needed)*</u>
Weed Height	Rate	· · · · · · · · · · · · · · · · · · ·
<u>(inches)</u>	(<u>fl oz/A)</u>	
, 2-3	× 16 ° ·	
3-6	24	
6-12	32	
Combined total a	application in-crop not to exceed	96 fluid ounces per acre.

Florida pusley, hemp sesbania and spurred anoda: Apply 32 fl oz/A to weeds 2-4"for the initial application. Apply 32 oz/A when these weeds are 3-6" tall if a sequential application is necessary.

Morningglory, black nightshade, groundcherry, and Pennsylvania smartweed: Apply 24 fl oz/A on 1-3" weeds, 32 fl oz/A on 3-6" weeds, or 48 fl oz/A on 6-12" weeds for the initial application.

Some weeds, such as black nightshade, broadleaf signalgrass, Texas panicum, burcumber, and sicklepod, with multiple germination times may require a sequential application of this product. Suppressed or stunted weeds may also require sequential applications. Sequential applications should be made after some regrowth has occurred. Use a minimum of 16 fluid ounces of this product per acre for sequential applications. The combined total of all in-crop postemergence treatments must not exceed 96 fluid ounces per acre.

DELTA/MID-SOUTH RECOMMENDATIONS

Narrow row, drilled, or wide row soybeans: An in-crop application of this product will provide effective control of the initial stand of labeled weeds. A sequential application will be required to control new flushes of weeds. For best results, an initial application of 32 fluid ounces per acre (fl oz/A), on 2-4" weeds is recommended. Weeds will generally be 2-4" tall 2 to 3 weeks after planting.

In	itial	Treatm	ent
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Weed Height	Rate
(inches)	<u>(fl oz/A)</u>
2-4	32
5-12	48

Sequential Application*

Weed Height	Rate
<u>(inches)</u>	<u>(fl oz/A)</u>
2-3	16
3-6	24
6-12	32

^{*}Combined total application in-crop not to exceed 96 fluid ounces per acre.

Hemp sesbania and spurred anoda: Apply a sequential treatment of 32 fl oz/A on 3-6"weeds if necessary

Some weeds, such as black nightshade, broadleaf signalgrass, Texas panicum, burcumber, and sicklepod, with multiple germination times may require a sequential application of this product. Suppressed or stunted weeds may also require sequential applications. Sequential applications should be made after some regrowth has occurred. Use a minimum of 16 fluid ounces of this product per acre for sequential applications. The combined total of all in-crop postemergence treatments must not exceed 96 fluid ounces per acre.

PERENNIAL WEEDS RATE RECOMMENDATIONS

A 32 to 64 fluid ounces per acre rate (single or multiple applications) of this product will control or suppress perennial weeds such as: bermudagrass, Canada thistle, common

milkweed, field bindweed, hemp dogbane, horsenettle, marestail (horseweed), nutsedge, quackgrass, rhizome johnsongrass, redvine, trumpetcreeper, swamp smartweed, and wirestem muhly.

For best results, allow perennial weed species to achieve at least 6" of growth before spraying with Roundup Original Witra. For additional information on perennial weeds, see the "PERENNIAL WEED RATE TABLE" of the label booklet for Roundup Original Witra. For some perennial species, repeat application may be required to eliminate crop competition throughout the growing season.

NOTE: Non-ionic Surfactant: Non-ionic surfactants which are labeled for use with postemergence herbicides may be used. When using additional surfactant, use 0.5 percent surfactant concentration (2 quarts per 100 gallons of spray solution) when using surfactants which contain at least 70 percent active ingredient or a 1 percent surfactant concentration (4 quarts per 100 gallons of spray solution) for those surfactants containing less than 70 percent active ingredient.

The addition of certain surfactants to this product may result in some crop response including leaf necrosis, leaf chlorosis or leaf speckling due to the surfactant added to the spray mixture.

Read and carefully observe cautionary statements and other information appearing on the surfactant label.

Read the "Limit of Warranty and Liability" in the label booklet for Roundup Ultra Original herbicide before using. These terms apply to this supplemental labeling and if these terms are not acceptable, return the product unopened at once.

©Monsanto Company 1998 MONSANTO COMPANY ST. LOUIS, MISSOURI 63167

-1/5/982/10/98

This supplemental label will expire February 1, 1999

Monsanto

Monsanto Company Suite 1100 700 14th Street, N.W. Washington, D.C. 20005

January 22, 1998

Hand Delivered

Office of Pesticide Programs
Document Processing Center (Final Printed Labels)
U.S. Environmental Protection Agency
Room 266A, Crystal Mall #2
1921 Jefferson Davis Highway
Arlington, VA 22202

Attention:

Mr. James A. Tompkins (7505C)

Team Leader (25)

Subject:

Roundup Original Herbicide

Final Printed Labels

Supplemental label: Aerial Applications in California

Dear Mr. Tompkins:

On 15-Oct-97, Monsanto provided draft text for a supplemental label to extend the aerial supplemental label for California to this new brand name. Herein, we provide five (5) copies of the final printed label identified as print plate 21154W1-24 and dated 21-Jan-98.

If you have any questions on this matter please feel free to contact me through Dr. Russell P. Schneider or directly at 314-694-1582.

Sincerely,

Stephen J. Wratter

Manager, Registrations

cc: R. P. Schneider

A. Hedgecock

Please read instructions	on reverse before completing to	ım.		Form Appro	ved. OMB N	ło. 2070-0	080. Appro	val expires 05-31
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	Washington, DC 20460				x Othe	r	2	<u>55288 </u>
	Арр	lication for	Pestici	de - Sect	ion I			<u></u>
1. Company/Product Nu	1mber 524-445		2. EPA M:	Product Mana r. James	oger Tompkins			Classification
4. Company/Product (N Ro	ame) oundup® Original Her	oicide _	PM#	25			X None	Restricts
5. Name and Address o	f Applicant (Include ZIP Code)		6. Ехр	edited Revi	iew. In acc	ordance v	vith FIFRA	Section 3(c)(3)
Monsanto Cor 700 14th Sti Washington,	reet, N.W., Suite 110	00	to:	ny product is	s similar or	identical in	n camposit	ion and labeling
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Resubmission in	response to Agency letter dated	1	_ 🗂	Agency lette "Me Too" A				
Notification - Ex	plain below.			Other - Expl	ain below.		?	
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PAPERWORK REDUCTION ACT NOTICE and INSTRUCTIONS

PAPERWORK REDUCTION ACT NOTICE: Public reporting burden for this collection of information is estimated to average 0.85 hour per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Chief, Information Policy Branch, (2136), U.S. Environmental Protection Agancy, 401 M Street, SW, Washington, DC 20460.

INSTRUCTIONS: This form is to be used for all applications for new registration, and use reregistration, amendment, resubmission, to applications for notifications, final printed labeling, reregistration, etc. in order to process an application for a new registration submitted on this form, the following material must accompany the application:

- 1. Certification with Respect to Citation of Data (EPA Form 8570-29). (If not exempted by 40 CFR 152.81 (b) (4));
- 2. Confidential Statement of Formula (EPA Form 8570-4);
- 3. Formulator's Exemption Statement (EPA Form 8570-27);
- 4. Five copies of draft labeling;
- 5. Three copies of any data submitted:
- Authorization letter where applicable;
- Matrices where applicable.

Submission of Labeling - Labeling should first be submitted in the form of draft labels with all applications for new registration. Such draft labels may be in the form of typed label text on 8.5 x 11 inch paper for submission or a mockup of the proposed label. If prepared for mockup, it should be constructed in a way as to facilitate storage in an 8.5 x 11 inch file. Mockup labels significantly smaller than 8.5 x 11 inches should be mounted on 8. x 11 inch paper for submission.

Submission of Data; Data submitted in support of this application must be submitted in accordance with PR Notice 86-5.

SPECIFIC INSTRUCTIONS: Please read the instructions listed below before completing this application. First determine the type of registration action, listed in Block A, for which you are submitting this application. For applications submitted in connection with New Registration actions, Sections I, III, and IV must be completed by the applicant. For applications submitted in connection with amended reregistration actions, resubmissions notifications, reregistrations, etc., Sections I, II, and IV must be completed by the applicant.

Block A - Check the appropriate action for which you are submitting this form.

SECTION I - This section must be completed, as applicable, for all registration actions.

- Company/Product Number Insert your Company Number, if one has been assigned by EPA. This number may have been assigned to you as a basic registrant, a distributor, or as an establishment. If your product is registered, insert the Product Number.
- 2: EPA Product Manager If known, fill in the name and PM number of the EPA Product Manager.
- 3. Proposed Classification Specify the proposed classification of this product: 63
- 4. Product Name Enter the complete product name of this pesticide estit will appear on the lebel. The name must be specific to this product only:
 ... Duplication of names is not permitted among products of the same company. Do not include any brand name or company line designations:
- 5. Name and Address of Applicant The name of the firm or person and address shown in your application is the person or firm to whom the registration will be issued. If you are acting in behalf of another party, you must submit authorization from that party to act for them in registration matters. An applicant not residing in the United States must have an authorized agent residing in the United States to act for them in all registration matters. The name and complete mailing address of such an agent must accompany this application.
- 5. Expedited Review FIFRA section 3 (c) 3 (8) provides for expedited review of applications for registration, or amendments to existing registrations, that are similar or identical to other posticide products that are currently registered with the EPA. In order for your application to be eligible for expedited review, you must provide us with the EPA Registration Number and product name of the product you believe is similar to or identical to your product. The product must be similar or identical in both formulation and labeled uses.

SECTION II - This section must be completed for all applications submitted to amend the registration only of a currently registered product (Amendment); for a resubmission in response to an Agency letter, for notifications to the Agency, for the submission of final printed labeling, for reregistration and for any other action that pertains to a specific EPA-registered product. This section is not to be used for a new application for registration.

1. Subject of submission. Check the applicable block and provide the Agency letter date if appropriate. Provide a brief explanation of the purpose(s) for the submission, such as "the addition of a site, pest or crop (spacify)"; "amend the Confidential Statement of Formula by..."; "reregistration submission"; "general label revision of use directions." Attach a separate page if additional space is needed.

SECTION III (Packaging and Container Information) - This Section must be completed for all applications submitted in connection with new

- registration of applicable amendments.

 1. Type of Packaging Check the appropriate block if your product will be packaged in the indicated packaging types.
 - Indicate the size of the individual packets and number per retail container.
- 2. Type of tetal Continuer Indicate type of container in which product will be marketed:
- 3. Location of Net Coments Indicate the location of the net contents information for your product.
- 4. Sizefal of Reput Consumer Specify the net contents of all retail containers for your product.
- 5. Location of Use-Directions Indicate the location of the use directions for your product.
- 6. Manner in which label is affized to product Indicated the method product label is attached to retail container.

SECTION IV (Confect Point) - This Section must be completed for all applications for Registration actions, i.e., new products registration, resubmission, "ma-top," reregistration, etc.

1-5. Self-explanatory.

. EPA Use Only.

Manuary 22, 1990

cod.

SUPPLEMENTAL LABELING

READ AND FOLLOW THE ENTIRE LABEL BOOKLET FOR ROUNDUP ORIGINALTM
HERBICIDE BEFORE PROCEEDING WITH THE USE DIRECTIONS
CONTAINED IN THIS SUPPLEMENTAL LABELING.

"Label" as used in this supplemental labeling refers to the label booklet for Roundup Original herbicide and this supplement.



EOT REVIEWED in Accordance with PR Notice 82-2. Thank on Orack Labellage Catel

1/2/19

a EPA Reg. No. 524-445

Roundup Original is a trademark of Monsanto Company.

FOR AERIAL APPLICATION IN CALIFORNIA ONLY

Keep out of reach of children.

WARNING! AVISO!

In case of an emergency involving this product, Call Collect, day or night, 314-694-4000.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in any manner inconsistent with its labeling.

This label must be in the possession of the user at the time of the herbicide application.

See "GENERAL INFORMATION" and "MIXING, ADDITIVES and APPLICA-TION INSTRUCTIONS sections of the Roundup Driginal label booklet for essential product performance information.

See the "CROPPING SYSTEMS" section of the label booklet for specific recommendations on the use of this product.

EXTREME CARE MUST BE EXER-CISED TO AVOID CONTACT OF SPRAY WITH FOLIAGE, GREEN STEMS, OR FRUIT OF DESIRABLE CROPS, PLANTS, TREES OR OTHER DESIR-ABLE VEGETATION, SINCE SEVERE DAMAGE OR DESTRUCTION MAY RESULT. Aerial applications of this product are allowed in the following situations.

- In fallow and reduced tillage systems prior to the emergence or transplanting of labeled crops.
- 2. In cotton, prior to harvest. Refer to the Roundup Original herbicide booklet for specific preharvest application instructions.

Do not plant subsequent crops other than those listed in the label booklet for this product 30 days following application.

When applied as recommended under the conditions described, this product controls annual and perennial weeds listed in the label booklet.

DO NDT EXCEED A MAXIMUM RATE OF 1 OUART PER ACRE OF THIS PRODUCT WHEN MAKING APPLICATIONS BY AIR.

Aerial Equipment

Use the recommended rates of this product in 3 to 15 gallons of water per acre.

Do not apply to water, to areas where surface water is present or to intertida areas below the mean high water mark. Do not contaminate water where disposing of equipment washwaters.

AVOID DRIFT---OO NOT APPLY WHEN WINDS ARE GUSTY OR UNDER ANY OTHER CONDITION WHICH WILL ALLOW DRIFT. DRIFT MAY CAUSE DAMAGE TO ANY VEGETATION CON TACTEO TO WHICH TREATMENT IS NOT INTENDED. TO PREVENINJURY TO ADJACENT DESIRABLE VEGETATION, APPROPRIATE BUFFEE ZONES MUST BE MAINTAINED.

Use the following guidelines where aerial applications are made nearops or desirable perennial vegetation after bud break and before totalleaf drop, and/or near other desirable vegetation or annual crops.

- 1. Do not apply within 100 feet of all desirable vegetation or crop(s).
- If wind up to 5 miles per hour is blowing toward desirable vegeta tion or crop(s), do not apply with

in 500 feet of the desirable vegetation or crop(s).

- Winds blowing from 5 to 10 miles per hour toward desirable vegetation may require buffer zones in excess of 500 feet.
- Do not apply when winds are in excess of 10 miles per hour or when inversion conditions exist.

Coarse sprays are less likely to drift; therefore, do not use nozzles or nozzle configurations which dispense spray as fine spray droplets. Do not angle nozzles forward into the airstream and do not increase nozzle pressure.

Drift control additives may be used. When a drift control additive is used,

read and carefully observe the cautionary statements and all other information appearing on the additive label. Ensure uniform application—To avoid streaked, uneven or overlapped application, use appropriate marking devices.

Thoroughly wash aircraft, especially landing gear, after each day of spraying to remove residues of this product accumulated during spraying or from spills. PROLONGED EXPOSURE OF THIS PRODUCT TO UNCOATED STEEL SURFACES MAY RESULT IN CORROSION AND POSSIBLE FAILURE OF THE PART. LANDING GEAR IS MOST SUSCEPTIBLE. The maintenance of an organic coating (paint) which meets

aerospace specification MIL-C-38413 may prevent corrosion.

Read the "LIMIT OF WARRANTY AND LIABILITY" in the label booklet for Roundup Original herbicide before using this product. Those terms apply to this supplemental labeling and if those terms are not acceptable, return the product unopened at once.

©1998

Monsanto Company St. Louis, MO 63167 U.S.A.

21154W1-24

1/21/98

Monsanto

Monsanto Company Suite 1100 700 14th Street, N.W. Washington, O.C. 20005

January 22, 1998

Hand Delivered

Office of Pesticide Programs
Document Processing Center (Final Printed Labels)
U.S. Environmental Protection Agency
Room 266A, Crystal Mall #2

1921 Jefferson Davis Highway
Arlington, VA 22202

Attention:

Mr. James A. Tompkins (7505C)

Team Leader (25)

Subject:

Roundup Original Herbicide

Final Printed Labels

Supplemental label: Aerial Applications in Fresno County

Dear Mr. Tompkins:

On 15-Oct-97, Monsanto provided draft text for a supplemental label to extend the aerial supplemental label for California to this new brand name. Herein, we provide five (5) copies of the final printed label identified as print plate 21154W1-25 and dated 21-Jan-98.

If you have any questions on this matter please feel free to contact me through Dr. Russell P. Schneider or directly at 314-694-1582.

Sincerely,

Stephen J. Wratten

Manager, Registrations

cc:

R. P. Schneider A. Hedgecock

Please read instructions	on reverse before completing form.	Form App	rovad. OMB No. 2070-006	O. Approval expires 05-31-98
0.504	United States	1	Registration	OPP Identifier Number
\$EPA	Environmental Protection Washington, DC 2046	-	Amendment X Other	255289
	Application	for Pesticide - Sec	tion I	
1. Company/Product Nu	mber 524-445	2. EPA Product Mar Mr. James	-	Proposed Classification
4. Company/Product (Na	Roundup® Original Herbic	ide PM#	25 L	None Restricted
5. Name and Address of Monsanto 700 14th Washington	Applicant (Include ZIP Code)	6. Expedited Rev	is similar or identical in (th FIFRA Section 3(c)(3) composition and labeling
		Section - II		
Amendment - Ex Resubmission in Notification - Exp	response to Agency letter dated	Final prints Agency let -Ma Too*	d labels in response to ter dated Application. slain below.	· ·
Explanation: Use add	ditional page(s) if necessary. (For section I	and Section II \		
	n of final printed supplemental plication in Fesno County,		undup Original)
1. Material This Product	: Will Be Packaged In:		· ·	
Child-Resistant Packagir Yea No Certification mus ba submitted	Yes No	Water Soluble Packaging Yes No No If "Yes" No. per Package wgt contains	2. Type of Contain Metal Plasti Glass Pepei Other	c t
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	e in travella in the second of the end of t	Section - IV	<u>. </u>	
1. Contact Point (Camp	lete items directly below for identification			his application.)
Dr. Russe	II P. Schneider	id• Agricultural Re Director		one No. (I.L.J.J.: Area Code) . 1 783-2460
1 1 1	Certificati tatements I have made on this form and al it any knowingly false or misleading staten able law.	I attachments thereto are tru		6. Onte Application Received (Stainped)
2. Signature,	UKAR 3.	Manager, Regis	trations	
Typed Name Step	hen J. Wratten, Ph.D. 5.	Date January 22,	1998	82
EPA Form 8570-1 (Rev. 8	3-94) Previous editions are obsolete.	₩	hs - EPA File Copy (origin	al) Yellow - Applicant Cop

PAPERWORK REDUCTION ACT NOTICE and INSTRUCTIONS

PAPERWORK REDUCTION ACT NOTICE: Public reporting burden for this collection of information is estimated to average 0.85 hour p response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Chief, Information Policy Branch, (2135), U.S. Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460.

INSTRUCTIONS: This form is to be used for all applications for new registration, and use reregistration, amendment, resubmission, to application for notifications, final printed labeling, raregistration, atc. In order to process an application for a new registration submitted on this form, the following material must accompany the application:

- 1. Certification with Respect to Citation of Data (EPA Form 8570-29). [If not exempted by 40 CFR 152.81 (b) (4)];
- 2. Confidential Statement of Formula (EPA Form 8570-4);
- 3. Formulator's Exemption Statement (EPA Form 8570-27);
- 4. Five copies of draft labeling;
- 5. Three copies of any data submitted;
- 6. Authorization letter where applicable;
- 7. Matrices where applicable,

Submission of Labeling - Labeling should first be submitted in the form of draft labels with all applications for new registration. Such draft labels may in the form of typed label text on 8.5 x 11 inch paper for submission or a mockup of the proposed label. If prepared for mockup, it should be constructed in a way as to facilitate storage in an 8.5 x 11 inch file. Mockup labels significantly smaller than 8.5 x 11 inches should be mounted on 8 x 11 inch paper for submission.

Submission of Data - Data submitted in support of this application must be submitted in accordance with PR Notice 86-5.

SPECIFIC INSTRUCTIONS: Please read the instructions listed below before completing this application. First determine the type of registration action, listed in Block A, for which you are submitting this application. For applications submitted in connection with New Registration actions, Sectic I. III, and IV must be completed by the applicant. For applications submitted in connection with amended reregistration actions, resubmissions, notifications, reregistrations, etc., Sections I, II, and IV must be completed by the applicant. Block A - Check the appropriate action for which you are submitting this form.

SECTION I - This section must be completed, as applicable, for all registration actions.

- Company/Product Number Insert your Company Number, if one has been assigned by EPA. This number may have been essigned to you as a basic registrant, a distributor, or as an establishment. If your product is registered, insert the Product Number.
- EPA Product Manager If known, fill in the name and PM number of the EPA Product Manager.
- Proposed Classification Specify the proposed classification of this product; ¿¿
- 4. Product Name: Enter the complete product name of this posticide as it will appear on the label. The name must be specific to this product only. Duplication of names is not permitted emong products of the same company. Do not include any brand name or company line designations.
- 5. Name and Address of Applicant The name of the firm or person and address shown in your application is the person or firm to whom the registration will be issued. If you are acting in behalf of another party, you must submit authorization from that party to act for them in registrati matters. An applicant not residing in the United States must have an authorized agent residing in the United States to act for them in all registration matters. The name and complete mailing address of such an agent must accompany this application.
- 6. Expedited Review FIFRA section 3 (c) 3 (B) provides for expedited review of applications for registration, or amendments to existing registration that are similar or identical to other pesticide products that are currently registered with the EPA. In order for your application to be eligible for expedited review, you must provide us with the EPA Registration Number and product name of the product you believe is similar to or identical to your product. The product must be similar or identical in both formulation and labeled uses.

กรุงแรกเลือน เมื่อก็การ Committee that SECTION II - This section must be completed for all applications submitted to amend the registration only of a currently registered product (Amendment), for a resubmission in response to an Agency letter, for notifications to the Agency, for the submission of final printed labeling, for reregistration and for any other action that pertains to a specific EPA registered product. This section is not to be used for a new application for 1 registration.

Subject of submission - Check the applicable block and provide the Agency latter date if appropriate. Provide a brief explanation of the purposets for the submission, such as "the eddition of a site, pest or crop (specify); "amend the Confidential Statement of Formula by..."; "reregistration -submission > general label revision of use directions.* Attach a separate page if additional space is needed.

Maria Malagara . . . SECTION-III (Packaging and Container Information) - This Section must be completed for all applications submitted in connection with new registration or applicable amendments.

- 1. Type of Packaging Check the eopropriate block if your product will be packaged in the indicated packaging types. Indicate the size of the individue packets and number per retail container.
- 2. Type Retail Container Indicate type of container in which product will be marketen.

 3. Location of Nat Contents Indicate the location of the net contents information for your product.
- 4. Size(#) of Retail Container Specify the net contents of all retail containers for your product.
- 5. Location of Jun Directions Indicate the location of the use directions for your product.
- Manner in which label is at like it to product Indicated the method product label is attached to retail container.

SECTION IV (Contact Point) - This Section must be completed for all applications for Registration actions, i.e., new products registration resubmission, "the too," reregistration, etc.

- 1-5. Self-explanatory.
- 8. EPA Use Only.

SUPPLEMENTAL LABELING

READ AND FOLLOW THE ENTIRE LABEL FOR ROUNDUP ORIGINAL™
HERBICIDE AND THE "FOR AERIAL APPLICATION IN CALIFORNIA ONLY"
SUPPLEMENTAL LABEL BEFORE PROCEEDING WITH THE USE DIRECTIONS
CONTAINED IN THIS SUPPLEMENTAL LABELING.

"Label" as used in this supplemental labeling refers to the label booklet for Roundup Original herbicide, the "FOR AERIAL APPLICATION IN CALIFORNIA ONLY"



Harbicide by Monsanto

EOT REVIEWED In Accordance with PR Notice SE-2. Posed on Droft Labeling Pared

1/21/98

EPA Reg. No. 524-445

Roundup Original is a trademark of Monsanto Company.

FOR AERIAL APPLICATION IN FRESNO COUNTY, CA ONLY From February 15 through March 31 only.

For aerial application outside these dates, refer to the "FOR AERIAL APPLICATION IN CALIFORNIA ONLY" statewide supplemental label.

Keep out of reach of children.

WARNING! AVISO!

In case of an emergency involving this product, Call Collect, day or night, (314) 694-4000.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in any manner inconsistent with its labeling.

This label must be in the possession of the user, at the time of the herbicide application:

See the "GENERAL INFORMATION" and "MIXING, ADDITIVES AND APPLICATION INSTRUCTIONS" sections of the label backlet for essential product information. See the "CROPPING SYSTEMS" section of the label booklet for specific recommendations on the use of this product.

Applicable Area

This supplement only applies to the area contained inside the following boundaries

within Fresno County, California only.

North: Fresno County line South: Fresno County line East: State Highway 99 West: Fresno County line

General Information

Always read and follow the label directions and precautionary statements for all products used in the aerial application.

Observe the following directions to minimize off-site movement during aerial application of Roundup Original herbicide. Minimization of off-site movement is the responsibility of the grower, Pest Control Advisor, and aerial applicator.

Written Recommendations

A written recommendation MUST be sub-

mitted by or on behalf of the applicator to the Fresno County Agricultural Commissioner 24 hours prior to the application. This written recommendation MUST state the proximity of surrounding crops, and that conditions of each manufacturer's applicable product label(s) and this label have been satisfied.

Aerial Applicator Training and Equipment

Aerial application of Roundup Driginal herbicide is limited to pilots who have successfully completed a Fresno County Agricultural Commissioner and California Department of Pesticide Regulation approved training program for aeria application of herbicides. All aircraft musbe inspected, critiqued in flight, and cert

fied at a Fresno County Agricultural Commissioner approved fly-in. Test and calibrate spray equipment at intervals sufficient to insure that proper rates of herbicides and adjuvants are being applied during commercial use. Applicator must document such calibrations and testing. Demonstration of performance at Fresno County Agricultural Commissioner approved "fly-ins" constitutes such documentation, or other written records showing calculations and measurements of flight and spray parameters acceptable to the Fresno County Agricultural Commissioner.

Application at night - Do not apply this product by air earlier than 30 minutes prior to sunrise and/or later than 30 minutes after sunset without prior permission from the Fresno County Agricultural Commissioner.

To report known or suspected misuse of this product, call 1-800-332-3111.

For additional information on the proper aerial application of Roundup Original herbicide, call 916-784-1718.

Read the "LIMIT OF WARRANTY AND LIABILITY" in the label for Roundup Original herbicide before using this product. Those terms apply to this supplemental labeling and if those terms are not acceptable, return the product unopened at once.

© 1998 Monsanto Company St. Louis, MD 63167 U.S.A.

1/21/98

21154W1-25

Monsanto

Monsanto Company Suite 1100 700 14th Street, N.W. Washington, D.C. 20005

January 22, 1998

Hand Delivered

Office of Pesticide Programs
Document Processing Center (Final Printed Labels)
U.S. Environmental Protection Agency
Room 266A, Crystal Mall #2
1921 Jefferson Davis Highway
Arlington, VA 22202

Attention:

Mr. James A. Tompkins (7505C)

Team Leader (25)

Subject:

Roundup Original Herbicide

Final Printed Labels

Directions for Use Booklets

Dear Mr. Tompkins:

On 15-Oct-97, Monsanto notified the Agency that "Roundup Original Herbicide" would become a new brand name under EPA Reg. No. 524-445. Herein we submit five (5) copies of the final printed label booklet for that product, identified as Print Plate 2£154V1-1/53 and dated 1998-1.

The printed label is identical to the draft text with the following minor changes:

Mr. Tompkins 22-Jan-98 Page 2

- Remove two restrictions on uses in California based on Cal EPA comments during their review of this text. These are:
 - Page 44 of the booklet: remove statement against control of Russian Olive.
 - Page 69 of the booklet: remove statement that Partner is not registered in California.
- Page 71 of the booklet: add the phrase "grain sorghum (milo)" to the first paragraph
 of the Preharvest Applications Section to be consistent with the inclusion on page 72
 of the use instructions for treating preharvest sorghum previously approved on a
 supplemental label.
- Page 84 of the booklet: update trademark references.

In addition, Monsanto has elected not to print the uses on a number of industrial, ornamentals, turfgrass, forestry, and utility rights-of-way sites on the label at this time.

If you have any questions on this matter please feel free to contact me through Dr. Russell P. Schneider or directly at 314-694-1582.

Sincerely,

Stephen J. Wratten

Manager, Registrations

cc: R. P. Schneider

A. Hedgecock

T. Staniforth

D. Hinton

M. Brown

Please read instructions	on reverse before comple	ting form.		Form App	roved.	OMB No.	2070-00	30. Approval expires	05-31-98
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PAPERWORK REDUCTION ACT NOTICE and INSTRUCTIONS

PAPERWORK REDUCTION ACT NOTICE: Public reporting burden for this collection of information is estimated to average 0.85 hour per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Chief, Information Policy Branch, (2136), U.S. Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460.

INSTRUCTIONS: This form is to be used for all applications for new registration, and use reregistration, amendment, resubmission, to applications for notifications, final printed labeling, reregistration, etc. In order to process an application for a new registration submitted on this form, the following material must accompany the application:

- 1 Certification with Respect to Citation of Data (EPA Form 8570-29). [If not exempted by 40 CFR 152.81 (b) (4)];
- 2. Confidential Statement of Formula (EPA Form 8570-4);
- 3. Formulator's Exemption Statement (EPA Form 8570-27);
- 4. Five copies of draft labeling;
- 5. Three copies of any data submitted;
- 6. Authorization letter where applicable;
- 7. Metrices where applicable.

Submission of Labeling - Labeling should first be submitted in the form of draft labels with all applications for new registration. Such draft labels may be in the form of typed label text on 8.5 x 11 inch paper for submission or a mockup of the proposed label. If prepared for mockup, it should be constructed in a way as to facilitate storage in an 8.5 x 11 inch file. Mockup labels significantly smaller than 8.5 x 11 inches should be mounted on 8 x 11 inch paper for submission.

Submission of Data - Data submitted in support of this application must be submitted in accordance with PR Notice 86-5.

SPECIFIC INSTRUCTIONS: Please read the instructions listed below before completing this application. First determine the type of registration action, disted in Block A, for which you are submitting this application, for applications submitted in connection with New Registration actions, Sections I, III, and IV must be completed by the applicant. For applications submitted in connection with amended reregistration actions, resubmissions, and iv must be completed by the applicant.

Block A I Check the appropriate action for which you are submitting this form.

SECTION I - This section must be completed, as applicable, for all registration actions.

- 1. Company/Product Number Insert your Company Number, if one has been assigned by EPA. This number may have been assigned to you as a basic registrant, a distributor, or as an establishment. If your product is registered, insert the Product Number.
- 3. Proposed Classification Specify the proposed classification of this product: . _
- 5. Name and Address of Applicant. The name of the firm or person and address shown in your application is the person or firm to whom the registration will be issued. If you ere acting in behalf of another party, you must submit authorization from that party to act for them in registration matters. An applicant not residing in the United States must have an authorized agent residing in the United States to act for them in all registration matters. The name and complete mailing address of such an agent must accompany this application.
- Expedited Review FIFRA section 3 (c);3 (B) provides for expedited review of applications for registration, or amendments to existing registrations, that are similar or identical to other posticidal products that are currently registered with the EPA. In order for your application to be eligible for expedited review, you must provide us with the EPA Registration Number and product name of the product you believe is similar to or identical to your product. The product must be similar or identical in both formulation and labeled uses.

SECTION II - This section must be completed for all applications submitted to amend the registration only of a currently registered product (Amendment), for large submission in response to an Agency factor, for notifications to the Agency, for the submission of final printed tabeling, for reregistration and for any other ection that pertains to a specific EPA-registration and for any other ection that pertains to a specific EPA-registration and for any other ection that pertains to a specific EPA-registration and for any other ection that pertains to a specific EPA-registration and for any other ection that pertains to a specific EPA-registration and for any other ection that pertains to a specific EPA-registration and for any other ection that pertains to a specific EPA-registration and for any other ection that pertains to a specific EPA-registration and for any other ection that pertains to a specific EPA-registration and for any other ection that pertains to a specific EPA-registration and for any other ection that pertains to a specific EPA-registration and for any other ection that pertains to a specific EPA-registration and for any other ection that pertains to a specific EPA-registration and for any other ection that pertains to a specific EPA-registration and for any other ection that pertains to a specific EPA-registration and for any other ection that pertains to a specific EPA-registration and for any other ection that pertains to a specific EPA-registration and for any other ection that pertains to a specific EPA-registration and for any other ection that pertains to a specific EPA-registration and for any other ection that pertains the specific EPA-registration and for any other ection that pertains the specific EPA-registration and for any other ection that pertains the specific EPA-registration and the specific EPA-registration

1. Subject of submission - Check the applicable block and provide the Agency letter date if appropriate. Provide a brief explanation of the purposats) for the submission, such as "the addition of a site, past or crop/specify); amend the Confidential Statement of Formula by..."; "reregistration submission"; "general label revision of use directions." Attach a separate page if additional space is needed.

SECTION III (Packaging and Container Information) - This Section must be completed for all applications submitted in connection with new registration of account of a container information of the container in connection with new registration of a container in connection with the connection of a connection of a connection with the connection of a co

- 1. Type of Packaging Chack the appropriate block if your product will be packaged in the indicated packaging types.
- indicate the size of the individual packets and number per retail container.
- 2. Type of Retail Container Indicate type of container in which product will be marketed (1975).

 3. Location of Net Contains Net cutte the location of the net contents information for your product.
- 4. Sizele of Retail Container Soucify the net contents of all retail containers for your products - -
- 5. Location of Use Practions Indiante the location of the use directions for your product.
- 6. Manner in which label is affixed to product? Indicated the method product label is attached to retail container.

SECTION IV (Contact Point) - This Section must be completed for all applications for Registration actions, i.e., new products registration, resubmission, "me-ton," relegistration, etc.

- 1-5. Self-explanatury.
- B. EPA Use Only.

January 22, 1998

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in Accordance with PR Notice 82-52

Complete Directions for Use 10/15/19

EPA Reg. No. 524-445

AVOID CONTACT WITH FOLIAGE, GREEN STEMS. EXPOSED NON-WOODY ROOTS OR FRUIT OF CROPS. DESIRABLE PLANTS AND TREES, SINCE SEVERE INJURY OR DESTRUCTION MAY RESULT.

Roundup is a registered trademark of Monsanto Company.

1998-1

21154V1-1/53



Complete Directions

EPA Reg. No. 524-445

AVOID CONTACT WITH FOLIAGE, GREEN STEMS, EXPOSED NON-WOODY ROOTS OR FRUIT OF CROPS, DESIRABLE PLANTS AND TREES, SINCE SEVERE INJURY OR DESTRUCTION MAY RESULT.

®Roundup is a registered trademark of Monsanto Company.

1998-1

2115471-1/53

Read each of these sections of this label for essential product performance information.

USE THESE CONVENIENT SECTION MARKERS

GENERAL INFORMATION

MIXING, ADDITIVES AND
APPLICATION INSTRUCTIONS

WEEDS CONTROLLED

NONCROP USES

CROPPING SYSTEMS

GRINHMUM TILLAGE

TREE AND VINE CROPS

Read the entire label before using this product.

Use only according to label instructions. ,

Read "LIMIT OF WARRANTY AND LIABILITY" before buying or using, fl terms are not acceptable, return at once unopened.

REFORMULATION IS PROHIBITED. SEE INDIVIDUAL CONTAINER LABEL FOR REPACKAGING LIMITATIONS.

LIMIT OF WARRANTY AND LIABILITY

This Company warrants that this groduct conforms to the chemical description on the label and is reasonably fit for the purposes set forth in the Complete Directions for Use label booklet ("Directions") when used in accordance with those Directions under the conditions described therein. NO OTHER EXPRESS WARRANTY OR IMPLIED WARRANTY OF FITNESS FOR PARTICULAR PURPOSE OR MERCHANTABILITY IS MADE. This warranty is also subject to the conditions and limitations stated herein.

Buyer and all users shall promptly notify this Company of any claims whether based in contract, negligence, strict liability, other tort or otherwise.

Buyer and all users are responsible for all loss or damage from use or handling which results from conditions beyond the control of this Company, including, but not limited to, incompatibility with products other than those set forth in the Directions, application to or contact with desirable vegetation, unusual weather, weather conditions which are outside the range considered normal at the application site and for the time period when the product is applied, as well as weather conditions which are outside the application ranges set forth in the Directions, application in any manner not explicitly set forth in the Directions, moisture conditions outside the moisture range specified in the Directions, or the presence of products other than those set forth in the Directions in or on the soil, crop or treated vegetation.

THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE LIMIT OF THE LIABILITY OF THIS COMPANY OR ANY OTHER SELLER FOR ANY AND ALL LOSSES, INJURIES OR DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT (INCLUDING CLAIMS BASED IN CONTRACT, NEGLIGENCE, STRICT LIABILITY OTHER TORT OR OTHERWISE) SHALL BE THE PURCHASE PRICE PAID BY THE USER OR BUYER FOR THE QUANTITY OF THIS PRODUCT INVOLVED, OR, AT THE ELECTION OF THIS COMPANY OR ANY OTHER SELLER, THE REPLACEMENT OF SUCH QUANTITY, OR, IF NOT ACQUIRED BY PURCHASE, REPLACEMENT OF SUCH QUANTITY, IN NO EVENT SHALL THIS COMPANY OR ANY OTHER SELLER, BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL OR SPECIAL PROMACES.

Buyer and all users are deemed to have accepted the terms of this LIMIT OF WARRANTY AND LIABILITY which may not be varied by any verbal or written agreement.

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LIMIT OF WARRANTY AND LIABILITY ,	2,3
PRECAUTIONARY STATEMENTS	
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PERENNIAL WEEDS	
WOODY BRUSH AND TREES	
NONCROP USES	
CROPPING SYSTEMS	

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

Keep out of reach of children.

WARNING! AVISO!

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

CAUSES SUBSTANTIAL BUT TEMPORARY EYE INJURY.

HARMFUL IF SWALLOWED OR INHALED.

Do not get in eyes or on clothing.

Avoid breathing vapor or spray mist.

FIRST AID: IF IN EYES, immediately hold eyelids open and flush with plenty of water for at least 15 minutes. Get medical attention.

IF INHALED, remove individual to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. Get medical attention.

IF SWALLOWED, this product will cause gastrointestinal tract imitation. Immediately dilute by swallowing water or milk. Get medical attention. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON.

Personal Protective Equipment (PPE)

Applicators and other handlers must wear long-sleeved shirt and long pants, shoes plus socks, and protective eyewear. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them, follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other taundry.

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in Worker Protection Standard (WPS) for agricultural pesticides (40 CFR 170.240 (d) (4-6)), the handler PPE requirements may be reduced or modified as specified in the WPS.

User Safety Recommendations:

Users should

- Wash hands before eating drinking chewing gum, using tobacco, or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

In case of an emergency involving this product, Call Collect, day or night, (314) 694-4000.

Environmental Hazards

On not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters.

Physical or Chemical Hazards

Spray solutions of this product should be mixed, stored and applied using only stainless steel, aluminum, fiberglass, plastic or plastic-lined steel containers.

DO NOT MIX, STORE OR APPLY THIS PRODUCT OR SPRAY SOLUTIONS OF THIS PRODUCT IN GALVANIZED STEEL OR UNLINED STEEL (EXCEPT STAINLESS STEEL) CONTAINERS OR SPRAY TANKS. This product or spray solutions of this product react with such containers and tanks to produce hydrogen gas which may form a highly combustible gas mixture. This gas mixture could flash or explode, causing serious personal injury, if ignited by open flame, spark, welder's torch, lighted cigarette or other ignition source.

ACTIVE INGREDIENT:

*Glyphosate, N-(phosphanamethyl)	
glycine, in the form of its isopropylamine salt	11.0%
INERT INGREDIENTS:	9.0%
10	00.0%

*Contains 480 grams per litre or 4 pounds per U.S. gallon of the active ingredient glyphosate, in the form of its isopropylamine salt. Equivalent to 355 grams per litre or 3 pounds per U.S. gallon of the acid, glyphosate.

This product is protected by U.S. Patent No. 4,405,531. Other patents pending. No license granted under any non-U.S. patent(s).

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in any manner inconsistent with its labeling. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulations.

Agricultural Use Requirements

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is: coveralls, waterproof gloves, shoes plus socks, and protective eyewear. The requirements in this box apply to uses of this product that are NOI within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries or greenhouses.

Keep people and pets off treated areas until spray solution has dried to prevent transfer of this product onto destrable vegetation.

For more product information, call toli-free 1-800-332-3111.

Storage and Disposal

Do not contaminate water, foodstuffs, feed or seed by storage or disposal.

See container label for STORAGE AND DISPOSAL instructions.

GENERAL INFORMATION

DO NOT APPLY THIS PRODUCT USING AERIAL SPRAY EQUIPMENT EXCEPT UNDER CONDITIONS AS SPECIFIED WITHIN THIS LABEL.

This product, a water soluble liquid, mixes readily with water to be applied as a foliar spray for the control or destruction of most herbaceous plants, it may be applied through most standard industrial or field-type sprayers after dilution and therough mixing with water in accordance with label instructions.

This product moves through the plant from the point of foliage contact to and into the root system. Visible effects on most annual weeds occur within 2 to 4 days, but on most perennial weeds may not occur for 7 days or more. Extremely cool or cloudy weather following treatment may slow activity of this product and delay visual effects of control. Visible effects are a gradual witting and yellowing of the plant which advances to complete browning of above-ground growth and deterioration of underground plant parts.

Unless otherwise specified on this label, delay application until vagetation has emerged and reached the stages described for control of such vegetation under the "WEEDS CONTROLLED" section of this label. Unemerged plants arising from unattached underground rhizomes or root stocks of perennials will not be affected by the herbicide and will continue to grow. For this reason, best control of most perennial weeds is obtained when treatment is made at late growth stages approaching maturity.

Always use the higher rate of this product per acre within the recommended range when (1) weed growth is heavy or dense, or (2) weeds are growing in an undisturbed (noncultivated) area.

On not treat weeds under poor growing conditions such as drought stress, disease or insect damage, as reduced weed control may result. Reduced results may also occur when treating weeds heavily covered with dust.

Reduced control may result when applications are made to annual or perennial weeds that have been mowed, grazed, or cut, and have not been allowed to regrow to the recommended stage for treatment.

Rainfall or irrigation occurring within 6 hours after application may reduce effectiveness. Heavy rainfall or irrigation within 2 hours after application may wash the chemical off the foliage and a repeat treatment may be required.

This product does not provide residual weed control. For subsequent residual weed control, follow a label-approved herbicide program. Read and carefully observe the cautionary statements and all other information appearing on the labels of all herbicides used.

Buyer and all users are responsible for all loss or damage in connection with the use or handling of mixtures of this product with herbicides or other materials that are not expressly recommended in this labeling. Mixing this product with herbicides or other materials not recommended on this label may result in reduced performance.

For best results, spray coverage should be uniform and complete. Do not spray weed foliage to the point of runoff.

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DOMESTIC ANIMALS: This product is considered to be relatively nontoxic to dogs and other domestic animals; however, ingestion of this product or large amounts of freshly sprayed vegetation may result in temporary gastrointestinal irritation (vomiting, diarrhea, colic, etc.). If such symptoms are observed, provide the animal with plenty of fluids to prevent dehydration. Call a veterinarian if symptoms persist for more than 24 hours.

ATTENTION

AVOID DRIFT. EXTREME CARE MUST BE USED WHEN APPLYING THIS PRODUCT TO PREVENT INJURY TO DESIRABLE PLANTS AND CROPS.

Do not allow the herbicide solution to mist, drip, drift or splash onto desirable vegetation since minute quantities of this product can cause severe damage or destruction to the crop, plants or other areas on which treatment was not intended. The likelihood of injury occurring from the use of this product is greatest when winds are gusty or in excess of 5 miles per hour or when other conditions, including lesser wind velocities, will allow spray drift to occur. When spraying, avoid combinations of pressure and nozzle type that will result in splatter or time particles (mist) which are likely to drift. AVOID APPLYING AT EXCESSIVE SPEED OR PRESSURE.

NOTE: Use of this product in any manner not consistent with this label may result in injury to persons, animals or crops, or other unintended consequences. Keep container closed to prevent spills and contamination.

MIXING, ADDITIVES AND APPLICATION INSTRUCTIONS

APPLY THESE SPRAY SOLUTIONS IN PROPERLY MAINTAINED AND CALI-BRATED EQUIPMENT CAPABLE OF DELIVERING DESIRED VOLUMES. DO NOT APPLY WHEN WIND OR OTHER CONDITIONS FAVOR ORIFT. HAND-GUN APPLICATIONS SHOULD BE PROPERLY DIRECTED TO AVOID SPRATING DESIRABLE PLANTS. MOTE: REDUCED RESULTS MAY OCCUR IF WATER CONTAINING SOIL IS USED, SUCH AS WATER FROM PONDS AND UNLINED DITCHES.

MIXING

This product mixes readily with water. Mix spray solutions of this product as follows: Fill the mixing or spray tank with the required amount of water. Add the recommended amount of this product (see the "DIRECTIONS FOR USE" and "WEEDS CONTROLLED" sections of this tabel) near the end of the filling process and mix well. Use caution to avoid siphoning back into the carrier source. Use approved anti-back-siphoning devices where required by state or local regulations. Ouring mixing and application, foaming of the spray solution may occur. To prevent or minimize foam, avoid the use of mechanical agitators, terminate by-pass and return lines at the bottom of the tank and, if needed, use an approved anti-foam or defoaming agent.

TANK MUXTURES

Always predetermine the compatibility of labeled tank mixtures of this product with water carrier by mixing small proportional quantities in advance.

Mix labeled lank mixtures of this product with water as follows:

- 1. Place a 20 to 35 mesh screen or wetting basket over filling port.
- Through the screen, fill the spray lank one-half full with water and start agitation.
- If a wettable powder is used, make a slurry with the water carrier, and add it SLOWLY through the screen into the tank. Continue agitation.
- If a flowable formulation is used, premix one part flowable with one part water. Add diluted mixture SLOWLY through the screen into the tank. Continue agitation.
- If an emulsifiable concentrate formulation is used, premix one part emulsifiable concentrate with two parts water. Add diluted mixture slowly through the screen into the tank. Continue agitation.
- Continue filling the spray tank with water and add the required amount of this product near the end of the filling process.

- Where nonionic surfactant is recommended, add this to the spray tank before completing the filling process.
- Add individual formulations to the spray tank as follows: wettable powder, flowable, emulsifiable concentrate, drift control additive, water soluble liquid followed by surfactant.

Maintain good agitation at all times until the contents of the lank are sprayed, if the spray mixture is allowed to settle, thorough agitation is required to resuspend the mixture before spraying is resumed.

Keep by-pass line on or near bottom of tank to minimize foaming Screen size in nozzle or line strainers should be no finer than 50 mesh. Carefully select proper nozzle to avoid spraying a fine mist. For best results with conventional ground application equipment, use flat fan nozzles.

Clean sprayer and parts immediately after using this product by thoroughly flushing with water.

ADDITIVES

SURFACTANTS

Nonionic surfactants which are labeled for use with herbicides may be used. Do not reduce rates of this product when adding surfactant. When adding additional surfactant, use 0.5 percent surfactant concentration (2 quarts per 100 gallons of spray solution) when using surfactants which contain at least 70 percent active ingredient or a 1 percent surfactant concentration (4 quarts per 100 gallons of spray solution) for those surfactants containing less than 70 percent active ingredient. Read and carefully observe surfactant cardionary statements and other information appearing on the surfactant label.

AMMONIUM SULFATE

The addition of 1 to 2 percent dry ammonium sulfate by weight or 8.5 to 17 pounds per 100 gallons of water may increase the performance of this product, and this product plus 2,4-0, BanvelTM or residual herbicide tank mixtures on annual and perennial weeds. The improvement in performance may be apparent where environmental stress is a con-

cern. Low-quality ammonium sulfate may contain material that will not readily dissolve, which could result in nozzle tip plugging. To determine quality, perform a jar test by adding 1/3 cup of ammonium sulfate to 1 gallon of water and agitate for 1 minute. If undissolved sediment is observed, predissolve the ammonium sulfate in water and fitter prior to addition to the spray tank. If ammonium sulfate is added directly to the spray tank, add slowly with agitation. Adding too quickly may clog outlet line. Ensure that ammonium sulfate is completely dissolved in the spray tank before adding herbicides or surfactant. Thoroughly rinse the spray system with clean water after use to reduce corrosion.

NOTE: The use of ammonium sulfate as an additive does not preclude the need for additional surfactant. Do not use herbicide rates lower than recommended in this label.

COLORANTS OR DYES

Agriculturally-approved colorants or marking dyes may be added to this product. Colorants or dyes used in spray solutions of this product may reduce performance, especially at lower rates or dilutions. Use colorants or dyes according to the manufacturer's recommendations.

APPLICATION EQUIPMENT AND TECHNIQUES

Do not apply this product through any type of irrigation system.

This product may be applied with the following application equipment: Aerial—Fixed Wing and Helicopter

Broadcast Spray

Controlled Droplet Applicator (CDA)—Hand-held or boom-mounted applicators which produce a spray consisting of a narrow range of droplet sizes.

Hand-Held and High-Volume Spray Equipment—Knapsack and backpack sprayers, pump-up pressure sprayers, handguns, handwands, mistblowers*, lances and other hand-held and motorized spray equipment used to direct the spray onto weed foliage.

*This product is not registered in California or Arizona for use in misthowers

Selective equipment—Recirculating sprayers, shielded sprayers and wiper applicators.

See the appropriate part of this section for specific instructions and rates of application.

AERIAL EQUIPMENT

Use the recommended rates of this herbicide in 3 to 15 gallons of water per acre unless otherwise specified on this label. See the "WEEDS CONTROLLED" section of this label for specific rates. Unless otherwise specified, do not exceed I quart per acre. Aerial applications of this product may be made in annual cropping conventional tillage systems, fallow and reduced tillage systems, tallow and reduced tillage systems and preharvest applications. Refer to the individual use area sections of this label for recommended volumes and application rates. FOR AERIAL APPLICATION IN CALIFORNIA, REFER TO THE FEDERAL SUPPLEMENTAL LABEL FOR AERIAL APPLICATIONS IN THAT-STATE FOR SPECIFIC INSTRUCTIONS, RESTRICTIONS AND REQUIREMENTS.

Avoid direct application to any body of water,

AVOID DRIFT—DO NOT APPLY DURING LOW-LEYEL INVERSION CONDI-TIONS, WHEN WINDS ARE GUSTY OR UNDER ANY OTHER CONDITION WHICH FAVORS DRIFT, DRIFT MAY CAUSE DAMAGE TO ANY VEGETATION CONTACTED TO WHICH TREATMENT IS NOT INTENDED. TO PREVENT INJURY TO ADJACENT DESIRABLE VEGETATION, APPROPRIATE BUFFER ZONES MUST BE MAINTAINED.

Coarse sprays are less likely to drift; therefore, do not use nozzles or nozzle configurations which dispense spray as fine spray droplets. Do not angle nozzles forward into the airstream and do not increase spray volume by increasing nozzle pressure.

Drift control additives may be used. When a drift control additive is used, read and carefully observe the cautionary statements and all other information appearing on the additive label.

Ensure uniform application—To avoid streaked, uneven or overlapped application, use appropriate marking devices.

Thoroughly wash aircraft, especially landing gear, after each day of spraying to remove residues of this product accumulated during spraying or from spills. PROLONGED EXPOSURE OF THIS PRODUCT TO UNCOATED STEEL SURFACES MAY RESULT IN CORROSION AND POSSIBLE FALLURE OF THE PART, LANDING GEAR ARE MOST SUSCEPTIBLE. The maintenance of an organic coating (paint), which meets aerospace specification MIL-C-38413, may prevent corrosion.

This product plus Banvel or 2,4-D tank mixtures may not be applied by air in California.

BROADCAST EQUIPMENT

For control of annual or perennial weeds listed on this tabel using broadcast equipment—Use the recommended rates of this product in 3 to 40 gallons of water per acre as a broadcast spray unless otherwise specified on this label. See the "WEEOS CONTROLLED" section of this label for specific rates. As density of weeds increases, spray volume should be increased within the recommended range to ensure complete coverage. Carefully select proper nozzle to avoid spraying a fine mist. For best results with ground application equipment, use flat tan nozzles. Check for even distribution of spray droplets.

CONTROLLED DROPLET APPLICATION (CDA)

The rate of this product applied per acre by vehicle-mounted CDA equipment must not be less than the amount recommended in this label when applied by conventional broadcast equipment. For vehicle-mounted CDA equipment, apply 3 to 15 gallons of water per acre.

For the control of labeled annual weeds with hand-held COA units, apply a 20 percent solution of this product at a flow rate of 2 fluid nunces per minute and a walking speed of 1.5 MPH (1 quart per acre). For the control of labeled perennial weeds, apply a 20 to 40 percent solution of this product at a flow rate of 2 fluid nunces per minute and a walking speed of 0.75 mph (2 to 4 quarts per acre).

Controlled droplet application equipment produces a spray pattern which is not easily visible. Extreme care must be exercised to avoid spray or drift contacting the foliage or any other green tissue of desirable vegetation, as damage or destruction may result.

NAND-HELD and HIGH-VOLUME EQUIPMENT

Use coarse sprays only.

Mix this product in clean water and apply to foliage of vegetation to be controlled. For applications made on a spray-to-wet basis, spray coverage should be uniform and complete. Do not spray to the point of runoff,

For control of annual weeds listed on this label, apply a 0.5 percent solution of this product plus nonionic surfactant to weeds less than 6 inches in height or runner length. Apply prior to seedhead formation in grass or bud formation in broadleaf weeds. Allow three or more days before tillage or mowing.

For annual weeds over 6 inches tall, or when not using additional surfactant, or unless otherwise specified, use a 1 percent solution. For best results, use a 2 percent solution on harder-to-control perennials, such as bermudagrass, dock, field bindweed, hemp dogbane, milkweed and Canada thistle.

When using application methods which result in less than complete coverage, use a 5 percent solution for annual and perennial weeds and a 5 to 10 percent solution for woody brush and trees.

Prepare the desired volume of spray solution by mixing the amount of this product in water as shown in the following table:

Spray Solution

Desired Volume	Amount of Roundup Original					
	1/2%	1%	11/1%	2%	5%	10%
I Gal	3 5 ⊕2	11/2 03	2 oz	235 02	616 oz	13 02
25 Gal	1 pt	l qt	114 of	2 gt	5 at	10 ot
100 Gal	2 qt	l gal	114 gal	2 gal	5 gal	10 gal
2 tablespoons = 1	fluid ayno	e:				

For use in knapsack sprayers, it is suggested that the recommended amount of this product be mixed with water in a larger container, Fill sprayer with the mixed solution.

SELECTIVE EQUIPMENT

This product may be applied through a recirculating spray system, a shielded applicator, or a wiper applicator after dilution and thorough mixing with water to listed weeds growing in any noncrop site specified on this label and only when specifically recommended in cropping systems.

A recirculating spray system directs the spray solution onto weeds growing above desirable vegetation, while spray solution not intercepted by weeds is collected and returned to the spray tank for reuse.

A shielded applicator directs the herbicide solution onto weeds, while shielding desirable vegetation from the herbicide.

A wiper applicator applies the berbicide solution onto weeds by rubbing the weed with an absorbent material containing the herbicide solution. AVOID CONTACT WITH DESIRABLE VEGETATION.

Contact of the herbicide solution with the desirable vegetation may result in damage or destruction. Applicators used above desired vegetation should be adjusted so that the lowest spray stream or wiper contact point is at least 2 inches above the desirable vegetation. Droplets, mist, foam, or splatter of the herbicide solution settling on desirable vegetation may result in discoloration, stunting or destruction.

Applications made above the crops should be made when the weeds are a minimum of 6 inches above the desirable vegetation. Better results may be obtained when more of the weed is exposed to the herbicide solution. Weeds not contacted by the herbicide solution will not be affected. This may occur in dense clumps, severe infestations or when the height of the weeds varies so that not all weeds are contacted. In these instances, repeal treatment may be necessary.

SHIELDED APPLICATORS

When applied as directed under conditions described for shielded applicators, this product will control those weeds listed in the "WEEDS CON-TROLLED" section of this label

Use the following equation to convert from a broadcast rate per acre to a band rate per acre.

Herbicide Band width Herbicide in inches Broadcast Band RATE RATE per acre Row width in inches per acre Band width Broadcast Band X VOLUME of VOLUME in inches of solution Row width solution in inches per acre per acre

Use nozzles that provide uniform coverage within the treated area. Keep shields on shielded sprayers adjusted to protect desirable vegetation. EXTREME CARE MUST BE EXERCISED TO AVOID CONTACT WITH DESIR-ABLE VEGETATION.

For specific rates of application and instructions for control of various annual and perennial weeds, see the "WEEDS CONTROLLED" section of this label.

WIPER APPLICATORS

Wiper applicators are devices that physically wipe appropriate amounts of this product directly onto the weed.

Equipment must be designed, maintained and operated to prevent the herbicide solution from contacting desirable vegetation. Operate this equipment at ground speeds no greater than 5 mph. Performance may be improved by reducing speed in areas of heavy weed infestations to ensure adequate wiper saturation. Better results may be obtained if 2 applications are made in opposite directions.

Avoid leakage or dripping onto desirable vegetation. Adjust height of applicator to ensure adequate contact with weeds. Keep wiping surfaces clean. Be aware that, on sloping ground, the herbicide solution may migrate, causing dripping on the lower end and drying of the wicks on the upper end of a wiper applicator.

Do not use wiper equipment when weeds are wet.

Mix only the amount of solution to be used during a 1-day period, as reduced activity may result from use of leftover solutions. Clean wiper parts immediately after using this product by thoroughly flushing with

Do not add surfactant to the herbicide solution.

For Rope or Sponge Wick Applicators—Mix 1 gallon of this product in 2 gallons of water to prepare a 33 percent solution. Apply this solution to weeds listed in this "WIPER APPLICATORS" section.

For Porous-Plastic Applicators—Solutions ranging from 33 to 100 percent of this product in water may be used in porous-plastic wiper applicators.

When applied as recommended under the conditions described for "WIPER APPLICATORS", this product CONTROLS the following weeds:

ANNUAL GRASSES

Com

Zea mays

Rye, common

Secale cereale

Panicum, Texas

Shattercane

Panicum teranum Sorghum bicolor

ANNUAL BROADLEAVES

Sicklepod

Starbur, bristly

Cassia obtusifolia

Acanthospermum hispidum

Spanishneedtes Bidens bipinnata

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2 3 4 F 1 SE

When applied as recommended under the conditions described to "WIPER APPLICATORS", this product SUPPRESSES the following weeds:

ANNUAL BROADLEAVES

Beggarweed, Florida

Desmodium tortuosum

Eupatorium capilliflorium Pigweed, redroot

Amaranthus retroflexus Ragweed, common Ambrosia artemisiifolia

PERENNIAL GRASSES Bermudagrass

Cynodon dactylon Guineagrass Panicum maximum

Johnsongrass Sorghum halepense

PERENHIAL BROADLEAVES

Dogbane, hemp Apocynum cannabinum

Milkweed Ascelepias syriaca Ragweed, giant Ambrosia trifida

Sunflower Helianthus annuvs

Thistle, musk Carduus nutans

Velvetleaf Abutilon theophrasti

Smutgrass. Sporobolus poiretii

Vaseygrass Paspalum urvillei

Nightshade, silverleaf Solanum elaeagnifolium

Thistle, Canada Cirsium arvense

WEEDS CONTROLLED

This herbicide controls many annual and perennial grasses and broadleal weeds

ANNUAL WEEDS

- · Apply to actively growing grass and broadleaf weeds.
- Allow at least 3 days after treatment before tillage.
- · For maximum agronomic benefit, apply when weeds are 6 inches or less in height.
- To prevent seed production, applications should be made prior to seedhead formation.
- . This product does not provide residual control; therefore, delay application until maximum weed emergence. Repeat treatments may be necessary to control later germinating weeds.

LOW-VOLUME BROADCAST APPLICATION (LOW-RATE TECHNOLOGY)

When applied as directed under the conditions described, this product will control the weeds listed below when:

- 1. Water carrier volumes of 3 to 10 gallons per acre for ground applications and 3 to 5 gallons per acre for aerial applications are recommended. (See the "AERIAL APPLICATION" section of this label for approved sites.)
- 2. A nonionic surfactant is added at 0.5 to 1 percent by total spray volume. Use 0.5 percent surfactant concentration when using surfactants which contain at least 70 percent active ingredient or a 1 percent surfactant concentration for those surfactants containing less than 70 percent active ingredient.

 The addition of 2 percent dry ammonium sulfate by weight or 17 pounds per 100 gallons of water may increase the performance of this product on annual weeds. The improvement in performance may be apparent where environmental stress is a concern. Refer to the "MIXING, ADDITIVES and APPLICATION INSTRUCTIONS" section of this label.

- Do not tank-mix with soil residual herbicides when using these rates unless otherwise specified.
- For weeds that have been mowed, grazed or cut, allow regrowth to occur prior to treatment.
- \bullet Refer to the "TANK MIXTURES" parties of this section for control of additional broadleaf weeds.

Fortail Setaria spp. Barnyardgrass Echinochlöf crus-gall Bluegrass, annual Poa annua Broma, downy	17 10 to 4 1 to 5	8 oz. 212 oz. 22 16 oz.) 23 y 24 oz.)
Biuegrass, annual Poa annua Broma, downy	是1410.65	12 oz 21. 16 oz 1) 724 oz 1)
Biuegrass, annual Poa annua Broma, downy		MARIE CONTRACTOR
Stoma, downy		
Mustard, blue Chorispora tenella		
Mustard, lansy of Descurania pinnata Mustard, tumble		
Sisymbrium allissimum Hustard, wild a Snapis ariensis Spurry, umbrella		
Holosleum umbellatum	 	·
Barley: Hordeum vulgare	12	
Rye Secale cereale		
Sandbur field A Cenchrus sppe Chattercane Sarghum bicolar		
un kgrass Lragiusus cilianensis s	7 Aug.	
Theat Triticum aestivum	18"	
orninggiory pomoca sops cklepod		16 0z.
Cassia obtusifolia Degrass, bulbons		
ieat Promus secalinus		
ickweed, commons de la		
erastium volgatum Educija		
ntgrass, jointed egilops cylindrica		A STATE OF THE STATE OF
unise) Common - S ne in villant		

	MUMIXAM	RATE PER ACRE*	
WEED SPECIES	HEIGHT/LENGTH	(Fluid Quaces)	
Henbit	5"	16 07.	
Lamium amplexicaule Horseweed/Marestall			
Conyra canadensis			
Lambsquarters, common Chempodium album			
Penoycress field			
Famweed This This This price to the This price t			•
Rocket, London	-		ì
Sisymbrium irio			
Ryegrass, Italian Lolium muliflorum			į.
Shepherdspurse	Į	ľ	5
Capsella bursa-pastoris Spurge, annual			Į,
Euphorbia spp.	7 (3) (6) (2)		
Burtlercup	12"	ţ	
Ranunculus spp. Cocklebut	H 150 500 50		į
Xanthium strumanum		2 9 2 9 2 2 2	-
Crabgrass Digitaria spp	}		
Dwartdandehou			
Krima cespitosa Falsellas, smallseed			
Camelina microcarpa	- 1	1	
	· · · · · · · · · · · · · · · · · · ·		
Foxtail, Carelina			
Alopecurus carolinianu	A VIEW		
Johnsongrass, seedling Sorghum halepense			
Oats, wild		医	
Panicum, fall			
Panicum dichotomiilore	m Table 1884 - Table 1		
Panicum Texas 2			
Pigweed, redroot			
Amaranthus retrotlexus Pigweed, smooth	E 102 5 4 70		
Amaranthus hybridus:			
Witchgrass Panicum capillare			
Sicklepod 200		2 274 a 2 5 6	
Cassiqoblusifolia		3 000 5 3 5 5	
Signalgrass, broadleat Brachiaria platyphylla	4*		
Horseweed/Marestails	Mark Target Mark Time and Control	No. of the Control of	
Horseweed/Marestails Copyra capadensis		A MARKET STATES	
Horseweed/Marestails			
Horseveed/Marestalls Conyra canaderciss Lambsquarters, commo Chenopodium album Spurge, angual			
Horseyeed/Marestatis Conyra capadersis Lambsquarters, commo Chenopodium album Spurga, annual Etiphorba spo		12.5	
Horseveed/Marestans/ Conyra canadersis/ Lambsquarters, commo Chenopodium album Spurge, annual Etiphorbia sop. Rice, red Oryza sativa		32 oz.	
Horseyeed/Marestatis Conyra canadersis Lambsquarters, commo Chenopodium album Spurge, angual Ecophorbia spp. Rice, red Oryza sativa			
Horseveed/Marestans/ Conyra canadersis/ Lambsquarters, commo Chenopodium album Spurge, annual Etiphorbia sop. Rice, red Oryza sativa	n 4°	Entailers to	
horseyeed/Marestalls/ Copyra canadersis* Lambsquarters, commo Chenopodium album Spurge, angual (S) Etiphorbia sop Rice, red Oyza saliva leaweed	n 4°		

WEED SPECIES	MAXIMUM HEIGHT/LENGTH	RATE PER ACRE* (Fluid Ounces)		
Sprangletop Leptochloa spp.	6.	32 oz.		
Deramum, Carcima y Geramum, Carcima nums, Goosegrass				
Eleusine indica Primruse/ culted evening Centillera lacrosite	Later the second second second second			
Pusley, Florida Richardia scabra				
Sicklepod Cassia oblivstoka sely Spanishneedles	(5 to 12 de)			
Bidens bipinnata	2 12 13 V	\$12.48 m 13.44		
Erodium spp Sprangletop Leptochloa spp.				

iluse these rates to control barnyardgrass in Alabama, Arkansas, Mississippi, Missouri, Louisiana and Texas for preplant treatments.

- *For those rates less than 32 fluid ounces per acre, this product at rates up to 32 fluid ounces per acre may be used where heavy weed densities exist.
- **For control in no-till systems, use 16 fluid ounces per acre.

TANK MIXTURES

ROUNDUP® ORIGINAL plus BANVEL plus NONIONIC SURFACTANT

ROUNDUP ORIGINAL plus 2,4-D PIUS NONIONIC SURFACTANT

DO NOT APPLY BANVEL OR 2,4-D TANK MIXTURES BY AIR IN CALIFORNIA.

These tank mixtures are recommended for use in fallow and reduced tiliage areas only. Follow use directions as given in the "LOW-VOLUME BROADCAST APPLICATION" section.

This product plus Banvel or 2,4-D will control the annual grasses and broadleaf weeds listed for this product alone at the indicated heights (except 8 fluid nunces per acre applications), plus the following broadleaf weeds. For those weeds previously listed at 8 fluid nunces of this product alone per acre, use 12 fluid ounces in these tank mixtures.

NOTE: Refer to the specific product labels for crop rotation restrictions and cautionary statements of all products used in tank mixtures. Some crop injury may occur if Banvel is applied within 45 days of planting. The addition of Banvel in a mixture with this product may provide shortterm residual control of selected weed species.

Apply 12 to 16 fluid ounces of this product plus 0.25 pound a.i. of Banvel or 0.5 pound a.i. of 2,4-0, plus 0.5 to 1 percent nonionic surfactant by total spray volume per acre to control dense populations of the following annual broadleaf weeds when less than the height indicated:

Cocklebur (12")

Xanthium strumanium

Kochia* (6")

Kochia scoparia

Lambsquarters (12°)

Chenopodium album

Lettuce, prickly (6")

Lactuca serripla

Marestail/Horseweed (5")

Morningglery (5°) Ipomoea sop.

Pigweed, redroot (12") Amaranthus retrollexus

Pigweed, smooth (12") Amaranthus hybridus

Thistle, Russian (12") Salsola kati

Conyta canadensis

*Controlled with Banvel tank mixture only.

Apply 16 fluid nunces of this product plus 0.5 pound a.i. of 2.4-0, plus 0.5 to 1 percent nonionic surfactant by total spray volume per acre to control the following annual broadleal weeds when less than 6 inches in height

Ragweed, common Ambrosia artemisiifolia Smartweed, Pennsylvania Polygonum pensylvanicum

Ragweed, piant

Ambrosia trifida

Velvetlezf Abutilon theophrasti

HIGH-VOLUME BROADCAST APPLICATIONS

When applied as directed under the conditions described, this product will control the weeds listed below when water carrier volumes are 10 to 40 gallons per acre for ground applications.

Apply 1 to 1.5 quarts of this product per acre plus 0.5 to 1 percent nonionic surfactant by total spray volume, Use 1 quart per acre if weeds are less than 6 inches tall and 1.5 quarts per acre if weeds are over 6 inches tall, if weeds have been mowed, grazed or cut, allow adequate time for new growth to reach recommended stages prior to treatment. These rates will also provide control of weeds listed in the "LOW-VOL-UME BROADCAST APPLICATION" section.

WEED SPECIES

8alsamapple* Momordica charantia

Bassia, fivehook Bassia hyssopilolia

Brome Bromus son Fiddleneck

Amsinckia spp. Fleabane, hairy Conyza bonariensis

Panicum Panicum spp.

Rapweed, common Ambrosia artemisiifolia

Ragweed, giant Ambrosia trifida

Smartweed, Pennsylvania Polygonum pensylvanicum

Sowthistle, annual Sonchus cleraceus

Fleabane Erigeron sop.

Nochia Kochia scoparia

Lettuce, prickly Lactuca serripta Sunflower Helianthus annuus Thistle, Russian

Salsola kali Velvetleaf Abutilan theophrasti

PERENNIAL WEEDS

Apply this product as follows to control or destroy most perennial weeds:

NOTE: If weeds have been mowed or tilled, do not treal until plants have resumed active growth and have reached the recommended

Repeat treatments may be necessary to control weeds regenerating from underground parts or seed. Repeat treatments must be made prior to crop emergence.

The addition of 1 to 2 percent dry ammonium suffate by weight or 8.5 to 17 pounds per 100 gallons of water may increase the performance of this product on perennial weeds. The improvement in performance may be apparent where environmental stress is a concern. Refer to the "MIXING, ADDITIVES and APPLICATION INSTRUCTIONS" section of this

When applied as recommended under the conditions described, this product WILL CONTROL the following PERENNIAL WEEDS:

Medicago sativa

Alligatorweed* Alternanthera philoxeroides

Anise (tennel) Foeniculum vulgare Artichoke, Jerusalem Helianthus tuberosus

Bahiagrass Paspalum notatum

Bentgrass Agrostis spp.

^{*}Apply with hand-held equipment only.

PERENNIAL WEEDS (continued)

Bermudagrass Cynodon dactylon

Bermudagrass, water (knotgrass) Paspalum distichum

Bindweed, field Convolvulus arvensis

Bluegrass, Kentucky
Poa spp.

Blueweed, Texas Helianthus ciliaris

Brackenfern Pteridium aquilinum

Bromegrass, smooth Bromus inermis

Bursage, woollyleaf Franseria tomentosa

Canarygrass, reed Phalaris arundinacea

Cattail Typha spp.

Clover, red Trifolium pratense

Clover, white Trifolium repens

Cogongrass Imperata cylindrica

Dallisgrass
Paspalum dilatatum

'.

Dandelion Taraxacum officinale

Dock, curly Rumex crispus

Dogbane, hemp Apocynum cannabinum

Fescues Festuca spp.

Fescue, tali Festuca arundinacea

Guineagrass Pancium maximum

Horsenettle Solanum carolinense

Horseradish Armoracia rusticana

Ice plant
Mesembryanthemum
crystallinum

iohnsongrass Sorghum halepense

Kikuyugrass Pennisetum clandestinum

Кларweed

Centaurea repens Lantana

Lantana camara

Lespedeza Lespedeza spp.

Milkweed Asclepias spp.

Muhly, wirestem Muhlenbergia frondonsa

Multein, common Verbascum thapsus

Napiergrass
Pennisetum purpureum

Nightshade, silverleat Solanum elaeagnifolium

Nutsedge; purple, yellow Cyperus rotundus Cyperus esculentus

Orchardgrass Dactylis glomerata

Pampasgrass Cortaderia spp.

Paragrass Brachiaria mutica

Phragmites*
Phragmites spp.
Poison bemlock
Conium maculatum

Quackgrass Agropyron repens

Redvine*
Brunnichia ovata

Reed, giant Arundo donax

Ryegrass, perennial Lolium perenne

Smartweed, swamp Polygonum coccineum

Spurge, leafy* Euphorbia esula

Starthistle, yellow Centaurea solstitalis

Sweet potato, wild*

Ipomoca pandurata

Thistle, Canada Cirsium arvense

Thistle, artichoke Cynara cardunculus

Timothy Phleum pratense

Torpedograss*
Panicum repens

Trumpetcreeper*
Campsis radicans

Vaseygrass Paspalum urvillei

Velvetgrass Holcus spp.

Wheatgrass, western Agropyron smithii

*Partial Control

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This product is not registered in California for use on water bermudagrass. See "DIRECTIONS FOR USE" and "MIXING, ADDITIVES and APPLICATION SYSTRUCTIONS" sections of this label for labeled uses and specific application instructions.

Affalfa—Apply 1 quart of this product per acre glus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. Make application after the last hay cutting in the fall. Allow affalfa to regrow to a height of 6 to 8 inches or more prior to treatment. Applications should be followed with deep tillage at least 7 days after treatment, but before soil treeze-up.

Alligatorweed—Apply 4 quarts of this product per acre or apply a 1.5 percent solution with hand-held equipment to provide partial control. Apply when most of the plants are in bloom. Repeat applications will be required to maintain such control.

Anise (tenne))/Poison hemlock—Apply a 1 to 2 percent solution of this product as a spray-to-wet treatment. Optimum results are obtained when plants are treated at the bud to full-bloom stage of growth. Repeat applications may be needed in succeeding years to control plants arising from seeds.

Bentgrass—For suppression in grass seed production areas. For ground applications only, apply 1.5 quarts of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 10 to 20 gallons of water per acre. Ensure entire crown area has resumed growth prior to fall application. Bentgrass should be actively growing and have at least 3 inches of growth. Titlage prior to treatment should be avoided. Titlage 7 to 10 days after application is recommended for best results. Failure to use tillage after treatment may result in unacceptable control.

Bermudagrass—For control, apply 5 quarts of this product per acre. For partial control, apply 3 quarts per acre. Treat when bermudagrass is actively growing and seedheads are present. Retreatment may be necessary to maintain control. Allow 7 or more days after application before tillage.

Bermudagrass, water (knotgrass)—Apply 1.5 quarts of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 5 to 10 gallons of water per acre. Apply when water bermudagrass is actively growing and 12 to 18 inches in length. Allow 7 or more days before tilling, flushing or flooding the field.

Fall applications only—Apply 1 quart of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 5 to 10 gallons of water per acre. Fallow fields should be tilled prior to application. Apply prior to frost on water bermudagrass that is actively growing and 12 to 18 inches in length. Allow 7 or more days before tillage.

Bindweed, field—For control, apply 4 to 5 quarts of this product per acre west of the Mississippi River and 3 to 4 quarts east of the Mississippi River. Apply when the weeds are actively growing and are at or beyond full bloom. Oo not beat when weed is under drought stress as good soil moisture is necessary for active growth. For best results, apply in late summer or fall. Fall treatments must be applied before a killing frost. Allow 7 or more days after application before tillage.

Also for control, apply 2 quarts of this product plus 0.5 pound a.i. of Banvel in 10 to 20 gallions of water per acre. At these rates, apply using ground application only.

The following tank mixtures with 2,4-D may be applied using aerial application equipment (except in California) in fallow and reduced tillage systems only.

For suppression on irrigated agricultural land, apply 1 to 2 quarts of this product plus 1 pound a.i. of 2,4-0 in 10 to 20 gallons of water per acre with ground equipment only. Applications should be made following barvest or in fall fallow ground when the bindweed is actively growing and the majority of runners are 12 inches or more in length. The use of at least one imigation will promote active bindweed growth.

For suppression, apply 16 fluid ounces of this product plus 0.5 pound a.i. of 2,4-0 plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre for ground applications and 3 to 5 gallons of water per acre for aerial applications. Applications

should be delayed until maximum emergence has occurred and when vines are between 6 to 18 inches in length.

In California only, apply 1 to 5 quarts of this product per acre. Actual rate needed for suppression or control will vary within this range depending on local conditions.

For suppression on irrigated land where annual tillage is performed, apply 1 quart of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. Apply to actively growing bindweed that has reached a length of 12 inches or greater. Allow maximum weed emergence and runner growth. Do not treat when weeds are under drought stress as good soil moisture is necessary for active growth. Allow 3 or more days after application

Bluegrass, Kentucky / Bromegrass, smooth / Orchardgrass—Apply 2 quarts of this product in 10 to 40 gallons of water per acre when the grasses are actively growing and most plants have reached boot-toearly seedhead stage of development. For partial control in pasture or hay crop renovation, apply 1 to 1.5 quarts of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. Apply to actively growing plants when most have reached 4 to 12 inches in height. Allow 7 or more days after application

Orchardgrass (sods going to no-till corn)—Apply 1 to 1.5 quarts of this product per acre plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. Apply to orchardgrass that is a minimum of 12 inches tall for spring applications and 6 inches tall for fall applications. Allow at least 3 days following application before planting. A sequential application of atrazine will be necessary for optimum results.

Blueweed, Texas—Apply 4 to 5 quarks of this product per acre west of the Mississippi River and 3 to 4 quarts per acre east of the Mississippi River. Apply when weed is actively growing and is at or beyond full bloom. Do not treat when weed is under drought stress as good soil

moisture is necessary for active growth. New leaf development indicales active growth. For best results, apply in late summer or fall. Fall treatments must be applied before a killing frost. Allow 7 or more days after application before tillage.

Brackeniern—Apply 3 to 4 quarts of this product per acre as a broadcast spray or as a 1 to 1.5 percent solution with hand-held equipment. Apply to fully expanded fronds which are at least 18 inches

Bursage, woollyleaf—For control, apply 2 quarts of this product plus I pint of Banvel per acre, for partial control, apply 1 quart of this product plus 1 pint of Banvel per acre. Add 0.5 to 1 percent nonionic surfactant by total spray volume and apply in 3 to 20 gallons of water per acre. Apply when plants are producing new active growth which has been initiated by moisture for at least 2 weeks and when plants are at

Canarygrass, reed / Timothy / Wheatgrass, western—Apply 2 to 3 quarts of this product per acre. For best results, apply to actively growing plants when most have reached the boot-to-head stage of growth. Allow 7 or more days after application before tillage.

Cogongrass—Apply 3 to 5 quarts of this product plus 0.5 to 1 percent nonionic surfactant in 10 to 40 gallons of water per acre. Apply when Cogongrass is at least 18 inches tall and actively growing in late summer or fall. Allow 7 or more days after application before tillage or mowing. Due to uneven stages of growth and the dense nature of vegetation preventing good spray coverage, repeat treatments may be necessary to maintain control.

Dandelion / Dock, curty—Apply 3 to 5 quarts of this product per acre when plants are actively growing and most have reached the early bud stage of growth. Allow 7 or more days after application before tiliage.

Also for control, apply 16 fluid ounces of this product plus 0.5 peund a.i. 2.4-D plus 0.5 to 1 percent nonionic surfactant by total spray volDogbane, hemp—Apply 4 quarts of this product per acre. Apply when actively growing and when most weeds have reached the late bud to flower stage of growth. Following crop harvest or mowing, allow weeds to regrow to a mature stage prior to treatment. For best results, apply in late summer or fall, Allow 7 or more days after application before tillage.

For suppression, apply 16 fluid ounces of this product plus 0.5 pound a.i. of 2,4-D plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre for ground applications and 3 to 5 gallons of water per acre for aerial applications, Delay applications until maximum emergence of dogbane has occurred.

Fescue, tall—Apply 3 quarts of this product in 10 to 40 gallons of water per acre to actively growing plants when most have reached boot-to-early seedhead stage of development.

Fall applications only—Apply 1 quart of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acte. Apply to fescue in the fall when actively growing and plants have 6 to 12 inches of new growth. Allow 7 or more days after application before tillage. A sequential application of 1 pint per acre of this product plus nonionic surfactant will improve long-term control and control seedlings germinating after tall treatments or the following spring.

Guineagrass—Apply 3 quarts of this product per acre or use a 1 percent solution with hand-held equipment. Apply to actively growing guineagrass when most has reached at least the 7-leaf stage of growth. Ensure thorough coverage when using hand-held equipment. Allow 7 or more days after application before tillage.

Johnsongrass / Ryegrass, perennial—Apply 1 to 3 quarts of this product per acre. In annual cropping systems apply 1 to 2 quarts of this product per acre. Apply 1 quart of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. Use 2 quarts of this product when applying 10 to 40 gallons of water per acre. In noncrop, or areas where annual tillage (no-till) is not performed, apply 2 to 3 quarts of this product in 10 to 40 gallons of water per acre. For best results, apply to actively growing plants when

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most have reached the boot-to-head stage of growth or in the fall prior to frost. Allow 7 or more days after application before tillage. Do not tank-mix with residual herbicides when using the 1 quart per acre rate.

for burndown of Johnsongrass, apply 1 pint per acre plus 0.5 to 1 percent nonionic surfactant in 3 to 10 gallons of water per acre before the plants reach a height of 12 inches. For this use, allow at least 3 days

Spot treatment (partial control or suppression)—Apply a 1 percent solution of this product plus 0.5 to 1 percent nonionic surfactant by height. Coverage should be uniform and complete.

Mikuyugrass—Apply 2 to 3 quarts of this product per acre. Spray when most kikuyugrass is at least 8 inches in height (3- or 4-leaf stage of growth) and actively growing. Allow 3 or more days after application before tillage.

Knapweed / Horseradish—Apply 4 quarts of this product per acre. Apply when actively growing and when most weeds have reached the late bud to flower stage of growth. Following crop harvest or mowing allow weeds to regrow to a mature stage prior to treatment. For test results, apply in late summer or fall, Allow 7 or more days after application before tillage.

Lantana—Apply this product as a 1 to 1.25 percent solution using hand-held equipment only. Apply to actively growing lantana at or beyond the bloom stage of growth. Use the higher application rate for plants that have reached the woody stage of growth. Allow 7 or more days after application before tillage.

Milkweed, common—Apply 3 quarts of this product per acre. Apply when actively growing and most of the milkweed has reached the late bud to flower stage of growth. Following small grain harvest or mowing allow milkweed to regrow to a mature stage prior to treatment. Allow 7 or more days after application before tillage.

Muhh, wirestem—Apply 1 to 2 quans of this product per acre. Use 1 quant of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. Use 2 quants of this product when applying 10 to 40 gallons of water per acre or in pasture, sod, or noncop areas. Spray when the wirestem muhhy is 8 inches or more in height and actively growing. Do not till between harvest and fall applications or in the fall or spring prior to spring applications. Allow 3 or more days after application before tillage. This product will not provide residual control of wirestem muhhy from seeds which germinate after application of this product. Do not tank mix with residual herbicides when using the 1 quart per acre rate.

Hightshade, silverleaf—For control, apply 2 quarts of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. Applications should be made when at least 60 percent of the plants have berries. Fall treatments must be applied before a killing frost. Allow 7 or more days after application before tillage. Do not treat when weed is under drought stress as good soil moisture is necessary for active growth.

Nutsedge; purple, yellow—Apply 3 quarts of this product per acre as a broadcast spray, or apply a 1 to 2 percent solution from hand-held equipment to control existing nutsedge plants and immature nutlets attached to treated plants. Treat when plants are in flower or when new nutlets can be found at rhizome tips. Nutlets which have not germinated will not be controlled and may germinate following treatment. Repeat treatments will be required for long-term control of ungerminated tiphers.

Sequential applications of 1 to 2 quarts of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre will provide control. Make applications when a majority of the plants are in the 3- to 5-leaf stage (less than 6 inches tall). Repeat this application, as necessary, when newly emerging plants reach the 3- to 5-leaf stage. Subsequent applications will be necessary for long-term control.

For suppression to partial control of existing plants, apply 1 pint to 2 quarts of this product per acre, plus 0.5 to 1 percent nonionic surfactant in 3 to 40 gallons of water per acre. Treat when plants have 3 to 5 leaves and most are less than 6 inches tall. Repeat treatments will be required to control subsequent emerging plants or regrowth of existing plants. Wait 7 days after treatment before tillage or mowing.

Pampasgrass / fee plant—Apply this product as a 1.5 to 2 percent solution using hand-held equipment. Apply to plants that are actively growing. Pampasgrass should be at or beyond the boot stage of growth. Thorough coverage is necessary for best control.

Phragmites—For partial control of phragmites in Florida and the counties of other states bordering the Gulf of Mexico, apply 5 quarts per acre as a broadcast spray or apply a 2 percent solution from hand-held equipment. In other areas of the U.S., apply 3 quarts per acre as a broadcast spray or apply a 1 percent solution from hand-held equipment for partial control. For best results, treat during late summer or fall months or when plants are actively growing and in full bloom. Treatment before or after this stage may lead to reduced control. Due to the dense nature of the vegetation, which may prevent good spray coverage or uneven stages of growth, repeat treatments may be necessary to maintain control. Visual control symptoms will be slow to develop.

Quackgrass—in Annual Cropping Systems, or in Pastures and Sods Followed by Deep Tillage: Apply 1 to 2 quarts of this product per acre. For the 1 quart rate, apply 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. For the 2 quart rate, apply in 10 to 40 gallons of water per acre. Do not tank mix with residual herbicides when using the 1 quart rate. Spray when quackgrass is 6 to 8 inches in height and actively growing. Do not till between harvest and tall applications or in fall or spring prior to spring application. Allow 3 or more days after application before tillage. In pastures or sods, for best results use a moldboard plow.

Quackgrass—Pasture or Sod or Other Honorop Areas Where Deep Tillage is Not Planned Following Application: Apply 2 to 3 quarts in 10 to 40 gallons of water per acre. Spray when the quackgrass is greater than 8 inches tall and actively growing. Do not till between harvest and fall application or in fall or spring prior to spring application. Allow 3 or more days after application before tillage.

Redvine—For suppression, apply 24 fluid ounces of this product per acre at each of two applications 7 to 14 days apart or a single application of 2 quarts per acre. Apply recommended rates in 5 to 10 gallons of water per acre plus 0.5 to 1 percent nonionic surfactant by total volume. Apply in late September or early October to actively growing plants, which are at least 18 inches tall and have been growing 45 to 60 days since the last tillage operation. Make applications at least 1 week before a killing frost.

Reed, giant—For control of giant reed, apply a 2 percent solution of this product when plants are actively growing. Best results are obtained when applications are made in late summer to fall.

Smartweed, swamp—Apply 3 to 5 quarts of this product per acre when plants are actively growing and most have reached the early bud stage of growth, Allow 7 or more days after application before tillage.

Also for control, apply 16 fluid ounces of this product plus 0.5 pound active ingredient of 2,4-D plus 0.5 to 1 percent nonionic surfactant by total volume in 3 to 10 gallons of water per acre in the late summer or fall. Apply when plants are actively growing and most have reached the early bud stage of growth. Allow 7 or more days after application before tillage.

Spurge, leafy—For suppression, apply 16 fluid ounces of this product plus 0.5 pound active ingredient 2,4-0 plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre in the late summer or tall. Apply when plants are actively growing. If mowing has occurred prior to treatment, apply when most of the plants are 12 inches tall. Allow 7 or more days after application before tillage.

Starthistle, yellow—Best results are obtained when applications are made during periods of active growth, including the rosette, bolting and early flower stages. For spray-to-wet applications, apply this product as a 2 percent solution. For broadcast applications, apply 2 quarts per acre in 10 to 40 gallons per acre of water carrier.

Sweet Potato, wild / Thistle, artichoke—Apply this product as a 2 percent solution using hand-held equipment. Apply to actively growing weeds that are at or beyond the bloom stage of growth. Repeat applications may be required. Allow the plant to reach the recommended stage of growth before retreatment. Allow 7 or more days before tillage.

Thistle, Canada—Apply 2 to 3 quarts of this product per acre. Apply to actively growing thistles when most are at or beyond the bud stage of growth. After harvest, mowing or tillage in the late summer or fall, allow at least 4 weeks for initiation of active growth and rosette development prior to the application of this product. Fall treatments must be applied before a killing frost. Allow 3 or more days after application before tillage.

For suppression of Canada thistle, apply 1 quart per acre of this product, or 1 pint of this product plus 0.5 pound a.i. 2.4-D per acre, plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre in the late summer or fall after barvest, mowing or tillage. Allow rosette regrowth to a minimum of 6 inches in diameter before treating. Applications can be made as long as leaves are still green and plants are actively growing at the time of application. Allow 3 or more days after application before tillage.

Torpedograss—Apply 4 to 5 quarts of this product per acre to provide partial control of torpedograss. Apply to actively growing torpedograss when most plants are at or beyond the seedhead stage of growth. Repeat applications will be required to maintain control. Fall treatments must be applied before frost. Allow 7 or more days after application before tillage.

Irumpetcreeper—For control, apply 2 quarts of this product per acre in 5 to 10 gallons of water per acre. Apply to actively growing plants in late September or October, which are at least 18 inches tall and have been growing 45 to 60 days since the last fillage operation. Make applications at least 1 week before a killing frost.

Other perennials fisted on this label—Apply 3 to 5 quarts of this product per acre. Apply when actively growing and most have reached early head or early bud stage of growth. Allow 7 or more days after application before tillage.

WOODY BRUSH AND TREES

When applied as recommended under the conditions described, this product CONTROLS or PARTIALLY CONTROLS the following woody brush, plants and trees:

Alder

Alnus spp. Ash*

Fraxinus spp. Aspen, quaking Populus tremulaides

Bearmat (Bearclover) Chamaebatia foliolosa

Beech Fagus grandifolia

Birch Betula spp.

Blackberry Rubus spp. Blackgum

Nyssa spp.

Bracken Peridium spp.

Broom: French

Cytisus monspessulanus

Scotch Cytisus scoparius

Buckwheat, California*

Eriogonum fasciculatum Cascara*

Rhamnus purshiana

Hawthorn

Crataegus spp.

Hazel

Corylus spp.

Hickory* Carya spp.

Holly, Florida/

Brazitian Peppertree* Schinus terebinthifolius

Honeysuckle Lonicera spp.

Hombeam, American* Carpinus caroliniana

Kudzu

Pueraria lobata

Locust, black* Robinia pseudoacacia

Madrone

Arbutus menziesii

Manzanita

Arctostaphylos spp.

Maple: Red** Acer rubrum

Sugar Acer saccharum

Vine* Acer circinatum

Catsclaw*

Acacia greggi

Ceanothus* Ceanothus spp.

Chamise

Adenostoma fasciculatum

Cherry:

Bitter

Prunus emarginata Black

Prunus serotina

Prunus pensylvanica

Coyote brush

Baccharis consanguinea

Creeper, Virginia*

Parthenocissus quinquefolia

Dewberry Rubus trivialis

Dogwood* Comus spp.

Elderberry Sambucus spp.

£lm* Ulmus spp.

Eucalyptus Eucalyptus spp.

Gorse

Ulex europaeus

Hasardia*

Haplopappus squamosus

Monkey Flower*

Mimulus guttatus

0ak:

Black*

Quercus velutina Northern Pin Quercus palustris Post

Quercus stellata

Red

Quercus rubra Southern Red

Quercus falcata White*

Quercus alba Persimmen*

Diospyros spp.

Pine Pinus spp.

Poison Ivy

Rhus radicans

Poison Oak Rhus toxicodendron

Poplar, yellow* Uniodendron tulipifera

Raspberry Rubus spp.

Redbud, eastern Cercis canadensis

Rose, multiflora Rosa multiflora

Russian-olive Elaeagnus angustilolia

Sage; black, white Salvia spp.

Sagebrush, California Artemisia californica

Salmonberry Rubus spectabilis

Salt cedar Tamarius spp. Sassatras

Sassalras aibidum

Sourwood Oxydendrum arboreum

Sumac:
Poison*
Rhus vernix
Smooth*
Rhus glabra
Winged*
Rhus consilina

Sweetgum

Liquidambar styracillua

Swordfern*

Polystichum munitum

Tallowtree, Chinese Sapium sebilerum

Tan Oak

Lithocarpus densiflorus

Thimbleberty Rubus parvillorus

Tobacco, tree*
Nicotiana glauca

Trumpetcreeper Campsis radicans

Waxmyrtle, southern* Myrica cerifera

Willow Salix spp.

NOTE: If brosh has been moved or billed or trees have been cut, do not treat until regrowth has reached the recommended stages of growth.

Apply this product when plants are actively growing and, unless otherwise directed, after full leaf expansion. Use the higher rate for larger plants and/or dense areas of growth. On vines, use the higher rate for plants that have reached the woody stage of growth. Best results are obtained when application is made in late summer or fall after fruit formation.

In arid areas, best results are obtained when application is made in the spring to early summer when brush species are at high moisture content and are flowering.

Ensure thorough coverage when using hand-held equipment. Symptoms may not appear prior to frost or senescence with fall treatments.

Allow 7 or more days after application before tillage, mowing or removal. Repeat treatments may be necessary to control plants regenerating from underground parts or seed. Some autumn colors on undesirable deciduous species are acceptable provided no major leaf drop has occurred. Reduced performance may result if fall treatments are made following a frost.

See "DIRECTIONS FOR USE" and "MUUNG, ADDITIVES and APPLICATION INSTRUCTIONS" sections of this label for labeled uses and specific application instructions.

Apply this product as follows to control or partially control the following woody brush and trees.

Alder / Dewberry / Honeysuckle / Post Oak / Raspberry—For control, apply 3 to 4 quarts per acre of this product as a broadcast spray or as a 1 to 1.5 percent solution with hand-held equipment.

Aspen, quaking / Cherry: bitter, black, pin / Hawthorn / Oak, southern red / Sweetgum / Trumpetcreeper—For control, apply 2 to 3 quarts of this product per acre as a broadcast spray or as a 1 to 1.5 percent solution with hand-held equipment.

Birch / Elderberry / Hazel / Salmonberry / Thimbleberry—For control, apply 2 quarts per acre of this product as a broadcast spray or as a 1 percent solution with hand-held equipment.

Blackberry—For control, apply 3 to 4 quarts per acre of this product as a broadcast spray, or 1 to 1.5 percent solution with hand-held equipment. Make application after plants have reached full leaf maturity. Best results are obtained when applications are made in late summer or fall. After berries have set or dropped in late fall, blackberry can be controlled by applying a 3/4 percent solution of this product plus 0.5

^{*}Partial control

^{**}See below for control or partial control instructions.

to I percent nonionic surfactant by total spray volume with hand-held equipment. For control of blackberries after leaf drop and until killing frost or as long as stems are green, apply 3 to 4 quarts of this product in 10 to 40 gallons of water per acre.

Broom: French, Scotch—For control, apply a 1.5 to 2 percent solution with hand-held equipment.

Buckwheat, California / Hasardia / Monkey Flower / Tobacco, tree—For partial control of these species, apply a I to 2 percent solution of this product as a foliar spray with hand-held equipment. Thorough coverage of foliage is necessary for best results.

Catsciaw—For partial control, apply as a 1 to 1.5 percent solution with hand-held equipment.

Coyote Brush—For control, apply a 1.5 to 2 percent solution with hand-held equipment when at least 50 percent of the new leaves are fully developed.

Eucatyptus—For control of eucatyptus resprouts, apply a 2 percent solution of this product with hand-held equipment when resprouts are 6 to 12 feet tall. Ensure complete coverage. Apply when plants are growing actively. Avoid application to drought-stressed plants.

Kudzu—For control, apply 4 quarts of this product per acre as a broadcast spray or as a 2 percent solution with hand-held equipment. Repeat applications will be required to maintain control.

Madrone resprouts—For suppression or partial control, apply a 2 percent solution of this product to resprouts less than 3 to 6 feet tall. Best results are obtained with spring/early summer treatments.

Maple, red—For central, apply as a 1 to 1.5 percent solution with hand-held equipment when at least 50 percent of the new leaves are fully developed. For partial control, apply 2 to 4 quarts of this product per acre as a broadcast spray.

Mapte, sugar / Oak, northern pin / Oak, red—For control, apply as a 1 to 1.5 percent solution with hand-held equipment when at least 50 percent of the new leaves are fully developed.

Paison Ivy / Poison Oak—For control, apply 4 to 5 quarts of this product per acre as a broadcast spray or as a 2 percent solution with handheld equipment. Repeat applications may be required to maintain control. Fall treatments must be applied before leaves tose green color.

Rose, multiflora—For control, apply 2 quarts of this product per acre as a broadcast spray or as a 1 percent solution with hand-held equipment. Treatments should be made prior to leaf deterioration by leaf-leeding insects.

Sage, black / Sagebrush, California / Chamise / Tallowtree, Chinese—For control of these species, apply a 1 percent solution of this product as a foliar spray with hand-held equipment. Thorough coverage of foliage is necessary for best results.

Tan oak resprouts—For suppression or partial control, apply a 2 percent solution of this product to resprouts less than 3 to 6 feet tall. Best results are obtained with fall applications.

Willow—For control, apply 3 quarts of this product per acre as a broadcast spray or as a 1 percent solution with hand-held equipment.

Other Woody Brush and Trees listed on this label—For partial control, apply 2 to 5 quarts of this product per acre as a broadcast spray or as a 1 to 2 percent solution with hand-held equipment.

NONCROP USES

See "GENERAL INFORMATION" and "MOUNG, ADDITIVES and APPLICA-TION INSTRUCTIONS" sections of this label for essential product performance information and the following "NONCROP" sections for specific recommended uses.

EXTREME CARE MUST BE EXERCISED TO AVOID CONTACT OF SPRAY WITH FOLIAGE, GREEN STEMS, EXPOSED NON-WOODY ROOTS OR FRUIT OF CROPS, DESIRABLE TURFGRASSES, TREES, SHRUBS OR OTHER DESIRABLE VEGETATION SINCE SEVERE DAMAGE OR DESTRUCTION MAY RESULT

Repeat treatments may be necessary to control weeds regenerating from underground parts or seeds.

Where repeat applications are necessary, do not exceed 10.6 quarts of this product per acre per year.

This product does not provide residual weed control. For subsequent weed control, follow a label-approved herbicide program.

Read and carefully observe the cautionary statements and all other information appearing on the labels of all herbicides used.

This product controls annual and perennial weeds listed on this label growing in areas such as ditch banks, dry ditches, dry canals, lencerows, and noncrop areas.

For specific rates of application and instructions for control of various annual and perennial weeds and woody brush and trees, see the "WEEDS CONTROLLED" section of this label.

This product may be applied with recirculating sprayers, shielded applicators, or wiper applicators in any noncrop site specified on this label. See the Selective Equipment part of "APPLICATION EQUIPMENT and TECHNIQUES" section of this label for information on proper use and calibration of this equipment.

CONTROL OF EMERGED WEEDS

NOTE: For backpack sprayer and handgun applications, see the "HAND-HELD AND HIGH VOLUME EQUIPMENT" section for recommended rates.

Annual Weeds—Apply 1 quart per acre of this product in these tank mixtures when weeds are less than 6 inches tall and 1.5 quarts per acre when weeds are more than 6 inches tall.

Perennial Weeds—For partial control of perennial weeds using these tank mixtures, apply 2 to 5 quarts per acre of this product. Follow the recommendations in the "WEEDS CONTROLLEO" section of this label for stage of growth and rate of application for specific perennial weeds.

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PREEMERGENCE WEED CONTROL

For preemergence weed control, refer to the individual product labels for specific noncrop sites, rates, carrier volumes and precautionary statements.

Mix only the quantity of spray solution which can be used during the same day. Oo not allow these tank mixtures to stand overnight as this may result in reduced weed control.

FARMSTEAD WEED CONTROL

When applied as directed for "NONCROP USES", under conditions described, this product controls undesirable vegetation listed on this label around farmstead building loundations, along and in fences, shelterbelts and for general nonselective farmstead weed control.

For specific rates of application and instructions for control of various annual and perennial weeds, see the "WEEDS CONTROLLED" section of this label

FARM DITCHES

This product will suppress perennial grasses along farm ditches. Apply this product at a rate of 6 to 8 fluid ounces per acre. Use 8 fluid ounces per acre when treating tall (coarse) fescue, fine fescue, orchardgrass or quackgrass covers. For best suppression of these species, add ammonium sulfate at a rate of 1.7 pounds per 10 gallons of spray solution. Use 6 fluid ounces per acre without ammonium sulfate when treating Kentucky bluegrass.

Apply treatments in 10 to 20 gallons of spray solution per acre to actively growing perennial grass covers. For best spray distribution and coverage, use flat fan nozzles.

Add a nonionic surfactant at a rate of 0.5 percent of the spray solution. Where broadleaf weed control or suppression is desired, tank mix this product with an appropriate, labeted broadleaf weed herbicide.

CONSERVATION RESERVE PROGRAM (CRP ACRES)

This product can be used to control undesirable vegetation when rotating out of CRP acres or to suppress competitive growth and seed production of undesirable vegetation in CRP acres.

For specific rates of application for various annual and perennial weeds, see the "WEEDS CONTROLLED" section of this label.

CRP applications may be made with wiper applicators or conventional sorar equipment.

For selective applications with broadcast spray equipment, apply 12 to 16 ounces per acre of this product in early spring before desirable CRP grasses, such as crested and tall wheatgrass, break dormancy and initiate green growth. Late fall applications can be made after desirable perennial grasses have reached dormancy. Some stunting of CRP perennial grasses will occur if applications are made when plants are not dormant.

DORMANT RANGELAND

This product will control or suppress many weeds, including downy brome, cheat grass, cereal rye, medusahead rye and joinled goalgrass in dormant rangeland.

Apply 8 to 16 ounces per acre of this product in the early spring when the weeds have greened up, but desirable grasses, such as crested and tall wheatgrass are still truly dormant.

Slight discoloration of the desirable grasses may occur, but they will regreen and regrow under moist soil conditions as effects of this product wear off.

Do not use additional surfactant or ammonium sulfate when spraying dormant rangeland grasses with Roundup Original.

HABITAT MANAGEMENT

This product is recommended for the restoration and/or maintenance of native habitats and in wildlife management areas. Apply as recommended in the "NONCROP USES" section of this label.

Habitat Restoration and Maintenance—When applied as directed, exotic and other undesirable vegetation may be controlled in habitat management areas. Applications can be made to allow recovery of native plant species, prior to planting desirable native species, and for similar broadspectrum vegetation control requirements in habitat management areas. Spot treatments can be made to selectively remove unwanted plants for habitat maintenance and enhancement. For spot treatments, care should be exercised to keep spray off of desirable plants.

Wildlife Food Ptots—This product may be used as a site preparation treatment prior to planting wildlife food ptots. Any wildlife food species may be planted after applying this product, or native species may be altowed to repopulate the area. If tillage is needed to prepare a seedbed, wait I days after applying this product before tilling.

CHRISTMAS TREES

THIS PRODUCT IS NOT RECOMMENDED FOR USE AS AN OVER-THE-TOP BROADCAST SPRAY IN CHRISTMAS TREES.

NOTE: Desirable plants may be protected from the spray solution by using shields or coverings made of cardboard or other impermeable material.

When applied as instructed for the conditions described for "NONCROP USES", this product controls undesirable vegetation listed on this label prior to planting, and as a postdirected spray around Christmas trees.

For specific rates of application and instructions for control of various annual and perennial weeds, see the "WEEDS CONTROLLEO" section of this tabe!

Where repeat applications are necessary, do not exceed 10.5 quarts of this product per acre per year.

Site Preparation—Following preplant applications of this product, any Christmas tree species may be planted. Precautions should be taken to protect nomarget plants during site preparation applications.

Postdirected Spray—Use as a postdirected spray around Christmas trees. Care must be exercised to avoid contact of spray, drift or mist with foliage of or green bank of established species.

CUT STUMP TREATMENTS

Woody vegetation may be controlled by treating freshly cut stumps of trees and resprouts with this product. Apply this product using suitable equipment to ensure coverage of the entire cambium. Cut vegetation close to the soil surface. Apply a 50 to 100 percent solution of this product to the freshly-cut surface immediately after cutting. Oelays in application may result in reduced performance. For best results, applications should be made during periods of active growth and full leaf expansion.

When used according to directions for cut stump application, this product will CONTROL, PARTIALLY CONTROL or SUPPRESS many types of woody brush and tree species, some of which are listed below:

Alder

Alnus spp.

Eucalyptus Eucalyptus spp.

Madrone Arbutus menziesii

Oak

Quercus spp.

Reed, giant Arundo donax Saltcedar Tamarisk sop.

Sweetgum

Liquidambar styraciflua

Tan Oak

Lithocarpus densiflorus

Willow Salix spp.

GRASS SEED PRODUCTION

PREPLANT AND RENOVATION

When applied as directed for "NONCROP USES", under conditions described, this product controls most existing vegetation prior to the planting or renovation of grass seed production areas.

For specific rates of application and instructions for control of various annual and perennial weeds, and woody brush and trees, see the "WEEDS CONTROLLED" section of this label.

For maximum control of existing vegetation, delay planting to determine it any regrowth from escaped underground plant parts occurs. Where repeat treatments are necessary, sufficient regrowth must be attained prior to application. For warm-season grasses, such as bermudagrass, summer or fall applications provide best control.

DO NOT DISTURB SOIL OR UNDERGROUND PLANT PARTS BEFORE TREATMENT. Tillage or renovation techniques such as vertical mowing, coring or slicing should be delayed for 7 days after application to allow proper translocation into underground plant parts.

Apply this product to actively growing weeds at the stages of growth recommended in the "WEEDS CONTROLLED" section of this label prior to planting or renovation of turl or forage grass areas grown for seed production.

DO NOT feed or graze treated areas within 8 weeks after application.

CROPPING SYSTEMS

When applied as directed for "CROPPING SYSTEMS", under the conditions described, this product controls annual and perennial weeds listed on this label, prior to the emergence of direct seeded crops or prior to transplanting of crops listed on this label.

See "GENERAL INFORMATION" and "MIXING. ADDITIVES and APPLICA-TION INSTRUCTIONS" sections of this label for essential product performance information.

See the following "CROPPING SYSTEMS" sections for specific recommended uses.

EXTREME CARE MUST BE EXERCISED TO AVOID CONTACT OF SPRAY WITH FOLIAGE, GREEN STEMS OR FRUIT OF DESIRABLE CROPS, PLANTS, TREES OR OTHER DESIRABLE VEGETATION SINCE SEVERE DAMAGE OR DESTRUCTION MAY RESULT.

Repeat treatments may be necessary to control weeds regenerating from underground parts or seed. Except as otherwise specified on this label, repeat treatments must be made before the crop emerges in accordance with the instructions of this label.

Except as otherwise specified in a crop section of this label, the combined total of all treatments must not exceed 8 quarts per acre of this product per year.

For any crop not listed below, applications must be made at least 30 days prior to planting.

Do not harvest or feed treated vegetation for 8 weeks following application. Following spot treatment or selective equipment use, allow 14 days before grazing domestic livestock or harvesting forage grasses and legumes.

ROW CROPS
CORN (ALL)*
COTTON*
PEANUTS
SORGHUM (MILO)*
SOYBEANS*
SUGARCANE*
CEREAL GRAINS

BARLEY*
BUCKWHEAT*
MILLEY (PEARL, PROSO)*
OATS*

RICE**
RYE*
TRITICALE*
WHEAT (ALL)*
WILD RICE*

CITRUS
CALAMONOIN
CHIRONJA
CITRON
GRAPEFRUIT
KUMQUAT

LIME MANOARIN ORANGE ORANGE (ALL)

PUMMELD TANGELO TANGERINE TANGORS

LEMON

TREE NUTS ALMOND BEECHNUT BRAZIL NUT BUTTERNUT CASHEW CHESTNUT CHINQUAPIN FILBERT (HAZEI

FILBERT (HAZELNUT) HICKORY NUT MACADAMIA

PECAN PISTACHIO

WALNUT (BLACK, ENGLISH)

YINE CROPS GRAPES KIWI FRUIT

IREE FRUITS
APPLE
APRICOTS
CHERRY (SWEET, SOUR)

TAUDON

NECTARINE OLIVE PEACH PEAR

YEGETABLES

PLUM/PRUNE (ALL) Quince

ARTICHOKE,
JERUSALEM
ASPARAGUS*
BEANS (ALL)
BEET GREENS
BEETS (RED, SUGAR)
BROCCOLI (ALL)

BRUSSELS SPROUTS
CABBAGE (ALL)
CABBAGE, CHINESE
CANTALOUPE***
CARROT
CAULIFLOWER
CASABA MELON***
CELERIAC
CELERY
CHARD, SWISS
CHICORY
COLLAROS
CRENSHAW MELON***
CUCUMBER***
EGGPLANT***

PEAS (ALL)
PEPPER (ALL)***
PERSIAN MELON***
POTATO (IRISH, SWEET)
PUMPKIN***
RADISH
RAPE GREENS
RHUBARB
RUTABAGA
SHALLOT
SPINACH (ALL)
SQUASH
(SUMMER, WINTER)***
TOMATILLO***

PARSHIPS

EGGPLANT***
ENDIVE
GARLIC***
GOURDS***
GROUND CHERRY***
HONEYDEW MELON***
HONEY BALL MELON***

TOMATO***†
TURNIP
WATERCRESS***
WATERMELON***
YAMS

HONEY BALL MED HORSERADISH KALE KOHLRABI LEEK LENTILS LETTUCE SMALL FRUITS AND BERRIES
BLACKBERRY

LETTUCE
MANGO MELON***
MELONS (ALL)***
MUSKMELON***
MUSTARD GREENS
OXRA
ONION
PARSLEY

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4

BLUEBERRY
BOYSENBERRY
CRANBERRY
CURRANT
DEWBERRY
ELDERBERRY
GOOSEBERRY
HUCKLEBERRY
LOGANBERRY
DIALLIEBERRY
RASPBERRY (BLACK, RED)

ALFALFA*
FORAGE GRASSES*
FORAGE LEGUMES*
IROPICAL_CROPS
ACEROLA
ATEMOYA
AVDCADD
BANANA
BREADFRUIT
CANSTEL
CARAMBOLA
CUERIMOYA

FORAGE CROPS AND LEGUMES

JABOTICABA
JACKFRUIT
LONGAN
LYCHEE
MANGO
PAPAYA
PASSION FRUIT
PERSIMMONS
PINEAPPLE****
PLANTAINS
POMEGRANATE
SAPODILLA
SAPOTE

CHERIMOYA COCOA BEANS COFFEE DATES FIGS GENSP

(BLACK, MAMEY WHITE) SOURSOP SUGAR APPLE

SOURSOP SUGAR APPI TAMARIND TEA

- *Spot treatments may be applied in these crops.
- **Do not treat rice fields or levees when the fields contain flood water
- ***Apply only prior to planting. Allow at least 3 days between application and planting.
- ****Do not feed or graze treated pineapple forage following application.
- 1 Use is restricted to direct seeded crops only.

When applying this product prior to transplanting crops into plastic mulch, care most be taken to remove residues of this product from the plastic prior to transplanting. Residues can be removed by 0.5 inch natural rainfall or by applying water via a sprinkler irrigation system.

Spot Treatment (Only those crops with "*" can be spot treated.)— Applications in growing crops must be made prior to heading of small grains and milo, initial pod set in soybeans, silking of corn, or boll opening on cotton. For forage grasses and forage legumes see "SPOT TREATMENT" in the "PASTURES" section of "CROPPING SYSTEMS" in this label.

For dilution and rates of application using boom or hand-held equipment, see "MDUNG, ADDITIVES and APPLICATION INSTRUCTIONS" and "WEEOS CONTROLLED" sections of this label.

NOTE: FOR FORAGE GRASSES AND FORAGE LEGUMES, NO MORE THAN ONE-TENTH OF ANY ACRE SHOULD BE TREATED AT ONE TIME. FOR ALL OTHER CROPS, DO NOT TREAT MORE THAN 10 PERCENT OF THE TOTAL FIELD AREA TO BE HARVESTED.

THE CROP RECEMING SPRAY IN TREATED AREA WILL BE KILLED. TAKE CARE TO AVOID DRIFT OR SPRAY OUTSIDE TARGET AREA FOR THE SAME REASON.

Selective Equipment—This product may be applied through recirculating sprayers, shielded applicators or wiper applicators in cotton and soybeans. Shielded and wiper applicators may also be used in tree crops and grapes. Wiper applicators may be used in wheat, rutabagas, forage grasses and forage tegumes, including pasture sites and grain sorgium (milo).

See the "SELECTIVE EQUIPMENT" part of the "APPLICATION EQUIP-MENT and TECHNIQUES" section of this label for information on proper use and calibration of this equipment.

 Wheat!
 .35 days

 Sorghum (milo)12
 .40 days

 100 not use roller applicators.
 .40 days

Do not feed or graze treated milo fodder. Do not ensile treated vegetation.

ASPARAGUS

When applied as directed for "CROPPING SYSTEMS" under the conditions described, this product controls weeds listed on this label in asparagus.

For specific rates of applications and instructions for control of various annual and perennial weeds, see the "WEEDS CONTROLLED" section of this label.

Prior to Grop Emergence—Apply this product prior to crop emergence for the control of emerged labeled annual and perennial weeds. OO NOT APPLY WITHIN A WEEK BEFORE THE FIRST SPEARS EMERGE.

Spot Treatment—Apply this product immediately after cutting, but prior to the emergence of new spears. Do not treat more than 10 percent of the total field area to be harvested. Do not harvest within 5 days of treatment.

Postharvest—Apply this preduct after the last harvest and all spears have been removed. If spears are allowed to regrow, delay application until ferns have developed. Delayed treatments should be applied as directed or shielded spray in order to avoid contact of the spray with ferns, stems or spears. Direct contact of the spray with the asparagus may result in serious crop injury.

NOTE: Select and use recommended types of spray equipment for postemergence postharvest applications. A directed spray is any application where the spray pattern is aligned in such a way as to avoid direct contact of the spray with the crop. A shielded spray is any application where a physical barrier is positioned and maintained between the spray and the crop to prevent contact of spray with the crop.

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BERRIES AND SMALL FRUITS

Wiper applicators may be used in cranberries in accordance with instructions in this section

For other berries, apply as a preglant broadcast application, or as a directed spray or wiger application post-planting.

See "GENERAL INFORMATION" and "MIXING, ADDITIVES and APPLICA-TION INSTRUCTIONS" sections of this label for essential product performance information.

See the "SELECTIVE EQUIPMENT" part of the "APPLICATION EQUIP-MENT and JECHNIQUES" section of this label for information on recommended use and calibration of this equipment.

Allow a minimum of 30 days between last application and harvest of cranberries. For other small fruits and berries, allow a minimum of 14 days between last application and harvest.

For Wick or other Wiper Applicators—Mix 1 gallon of this product in 4 gallons of water to prepare a 20 percent solution.

In severe infestations, reduce equipment ground speed to ensure that adequate amounts of this product are wiped on the weeds. A second treatment in the opposite direction may be beneficial.

Do not permit herbicide solution to contact desirable vegetation, including green shoots, canes or foliage.

CORN

Hooded Sprayers—This product may be used through hooded sprayers for weed control between the rows of corn. Only hooded sprayers that completely enclose the spray pattern may be used.

A hooded sprayer is a type of shielded applicator. The spray pattern is completely enclosed on the top and all 4 sides by a hood, thereby shielding the crop from the spray solution. This equipment must be set up and operated in a manner that avoids bouncing or raising the hoods

off the ground in any way. If the hoods are raised, spray particles may escape and come into contact with the crop, causing damage or destruction of the crop. The spray hoods must be operated on the ground or skimming across the ground. Tractor speed must be adjusted to avoid bouncing of the spray hoods. Avoid operation on rough or sloping ground where the spray hoods might be raised off the ground.

When applying to corn that is grown on raised beds, ensure that the hood is designed to completely enclose the spray solution. If necessary, extend the front and rear flaps of the hoods to reach the ground in deep furnows.

Follow these requirements:

- The spray hoods must be operated on the ground or skimming across the ground.
- On not apply more than 1 quart of this product per acre per application
- Com must be at least 12 inches tall, measured without extending leaves.
- Leave at least an 8 inch untreated strip over the drill row. For example, if the crop row width is 38 inches, the maximum width of the spray hood should be 30 inches.
- Maximum tractor speed: 5 mph.
- Maximum wind speed: 10 mph.
- Use low-drift nazzles.

Crop injury may occur when the foliage of treated weeds comes into direct contact with leaves of the crop. Do not apply this product when the leaves of the crop are growing in direct contact with weeds to be treated. Droplets, mist, foam or splatter of the herbicide solution may contact the crop and cause discoloration, stunting or destruction.

Contact of this product in any manner to any vegetation to which treatment is not intended may cause damage. Such damage shall be the sole responsibility of the applicator. For specific rates of application and instructions for control of various annual and perennial weeds, see the "Weed Control Section" of this label.

Do not graze or feed com forage or fodder following applications of this product through hooded sprayers.

Do not apply more than 3 quarts of this product per acre per year for hooded sprayer applications.

FALLOW AND REDUCED TILLAGE SYSTEMS

FOR AERIAL APPLICATION IN CALIFORNIA, REFER TO SUPPLEMENTAL LABEL.

Use this product in fallow and reduced tillage systems for control of annual weeds prior to emergence of crops listed in this label. Refer to the "WEEDS CONTROLLED" section of this label for specific rates and instructions. This product may be applied using ground or aerial spray equipment. See the "APPLICATION EQUIPMENT and TECHNIQUES" section of this label for instructions.

TANK MIXTURES
ROUNDUP® ORIGINAL plus BANYEL
plus NONIONIC SURFACTANT

ROUNDUP ORIGINAL plus 2,4-0 plus Nonionic Surfactant

ROUNDUP ORIGINAL plus GOALTX plus nonionic surfactant

DO NOT APPLY BANYEL OR 2.4-D YANK MIXTURES BY AIR IN CALIFORNIA. Applications of 2.4-D or Banvel must be made at least 7 days prior to planting corn.

The addition of Banvel in a mixture with this product may provide short-term residual control of selected weed species. Some crop injury may occur if Banvel is applied within 45 days of planting. Refer to the Banvel and 2,4-D labels for cropping restrictions and other use instructions.

Roundup Original plus Goal Tank Mixtures

This product alone or in tank mixtures with Goal plus 0.5 to 1 percent nonionic surfactant by total spray volume will provide control of those weeds listed below.

Make applications when weeds are actively growing and at the recommended stages of growth. Avoid spraying when weeds are subject to moisture stress, when dust is on the foliage or when straw canopy covers the weeds.

Roundup Original 12 fluid oz/acre		Roundup Original 16 fluid oz/acre	
Wheat	16**	Annual grasses at left pli	
Bartey	12"	Ryegrass, annual	6-
Bluegrass, annual	6.	Chickweed	6.
Barnyardarass	6.	Groundsel	6*
_	_	Marestail	6*
łye	6.	Rocket, Landon	6"
		Shepherdspurse	6*
		Crabgrass	12*
		Johnsongrass, seedling	12"
		Lambsquarters	12"
		Oats, wild	12*
		Pigweed, redroot	12*
		Mustards	121

NOTE: Use 32 fluid ounces of this product per acre where heavy weed densities exist.

			54
Roundup Original		Roundup Original	
12 fluid oz/acre		16 fluid oz/acre	
÷		+	
GOAL**		GOAL**	
2 to 4 fluid oz/acre		2 to 4 fluid oz/acre	
Annual grasses above plus:		Annual weeds above plus:	
Cheeseweed, common	3"	Cheeseweed, common	6"
Chickweed	3•	Groundsel	6
Groundsel	3*	Chickweed	15.
Rocket, London	6*	Rocket, London	12"
Shepherdspurse	6"	Shepherdspurse	12"

NOTE: Use 32 fluid ounces of this product per acre in mixtures with 2 to 4 fluid ounces of Coal per acre where heavy weed densities exist.

- *Maximum height or length in inches.
- **Use the higher rate of Goal when weeds approach maximum recommended height or stands are dense.

These recommended tank mixtures may be applied using ground or aerial spray equipment. Refer to the "WEEDS CONTROLLED" section of this label for specific rates and instructions.

ECOFARMING SYSTEMS

The recommendations made in this section are not registered for use in California.

The Ecofarming System consists of the following rotation; winter wheat, corn/sorghum, ecofallow.

Use the following tank mixtures for control of emerged annual weeds before planting corn or sorghum in the Ecofarming System.

Roundup Original at 16 to 20 fluid ounces per acre	
nlus	

2.4-D at 0.375 to 0.5 pound a.i. per acre j plus

Atrazine at 0.75 to 1 pound a.i. per acre

Lasso[®] at 2.5 to 3 quarts per acre

The above tank mixture should be applied in 28-0-0 or 32-0-0 liquid fertilizer carrier at 20 to 30 gallons per acre. The liquid fertilizer may be disused with water to achieve the desired carrier volume.

WEEDS CONTROLLED—The following weeds, up to a maximum height of 4 inches, will be controlled:

Brome, downy Bromus tectorum Lettuce, prickly
Lactuca serriola

Cheat

Di-

Bromus secalinus

Pigweed, redroot Amaranthus retrollexus

Fortail, green

Thistle, Russian Salsola kali

Setaria viridis

Wheat, volunteer Iriticum aestivum

Foxtail, yellow Setaria lutescens

Kochia* Kochia scoparia

3* Hill

*For improved control of kochia, add 4 fluid ounces per acre (0.125 pound a.i. per acre) of Banvel to the above tank mixture.

Risk of crop injury from 2,4-D or Banvel can be reduced by applying this treatment 7 to 14 days before glanting.

Refer to the label booklet for Lasso herbicide for preemergence weed control achieved by this tank mixture.

Refer to the specific product labels for crop rotation restrictions and cautionary statements for all products used in these tank mixtures.

THE RESERVE OF THE PROPERTY OF

AID TO TILLAGE

This product, when used in conjunction with preplant tillage practices, will provide control of downy brome, cheat, volunteer wheat, tansy mustard and fortail. Apply 8 fluid ounces of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. Make applications when weeds are actively growing and before they are 6 inches in height. Application must be followed by conventional tillage practices no later than 15 days after treatment and before regrowth occurs. Allow at least 1 day after application before tillage. Tank mixtures with residual herbicides may result in reduced performance.

POSTHARVEST GRAIN SORGHUM, SORGHUM REGROWTH CONTROL

This product may be applied to grain sorghum (mile) stubble following harvest to suppress or control regrowth. Apply 1 quart of this product per acre for control, or 1.5 pints of this product per acre for suppression. Use 0.5 percent nonionic surfactant in 3 to 10 gallons of spray solution per acre.

PASTURES

Apply this product prior to planting forage grasses and legumes.

Pasture or Hay Crop Renovation—When applied as a broadcast spray, this product controls the annual and perennial weeds listed in this label prior to planting forage grasses or legumes. Remove domestic livestock before application and wait 8 weeks after application before grazing or harvesting.

Spot freatment—When applied as a spot treatment as recommended, this product controls annual and perennial weeds listed in this tabel which are growing in pastures, forage grasses and forage legumes composed of bahiagrass, bermudagrass, bluegrass, brome, fescue, orchardgrass, pyegrass, timothy, wheatgrass, alfalla or clover.

Wiper Application—When applied as directed, this product controls or suppresses the weeds listed under "VIPER APPLICATORS" in the "SELECTIVE EQUIPMENT" section of this label.

For spot treatment and wiper application, apply in areas where the movement of domestic livestock can be controlled. No more than one-tenth of any acre should be treated at one time. Further applications may be made in the same area at 30-day intervals. Remove domestic livestock before application and wait 14 days after application before grazing livestock or harvesting.

SUGARCANE

When applied as directed for "CROPPING SYSTEMS", under the conditions described, this product controls those emerged annual and perennial weeds listed on this label growing in or around sugarcane or in fields prior to the emergence of plant cane. This product will also control undesirable sugarcane.

NOTE: Where repeat treatments are necessary, do not exceed a total of 10.6 quarts of this product per acre per year. Do not apply to vegetation in or around ditches, canals or ponds containing water to be used for irrivation.

Broadcast Treatment—Apply this product in 10 to 40 gallons of water per acre on emerged weeds prior to the emergence of plant cane.

For specific rates of application and instructions for control of various annual and perennial weeds, see the "WEEDS CONTROLLED" section of this label

For removal of last stubble or ration cane, apply 4 to 5 quarts of this product in 10 to 40 gallons of water per acre to new growth having at least 7 or more new leaves. Allow 7 or more days after application before tillage.

Spot Treatment in or Around Sugarcane Fields—For dilution and rates of application using hand-held equipment, see "MIXING ADDITIVES and APPLICATION INSTRUCTIONS" and "WEEDS CONTROLLED" sections of this label.

For control of volunteer or diseased sugarcane, make a 1 percent solution of this product in water and spray to wet the foliage of vegetation to be controlled.

NOTE: When spraying volunteer or diseased sugarcane, the plants should have at least 7 new leaves.

Avoid spray contact with healthy cane plants since severe damage or destruction may result.

Do not feed or graze treated sugarcane forage following application.

CONSERVATION TILLAGE, MINIMUM TILLAGE AND NO-TILL SYSTEMS CORN AND SOYBEANS Tank Mixtures

The recommendations made in this section are not registered for use in California.

When applied as recommended under the conditions described, the tank mixtures tisted in this section control many emerged weeds, and give preemergence control of many annual weeds where corn or soybeans will be planted directly into a cover crop, established sod or in previous crop residues.

Refer to specific product labels for crop rotation restrictions and cautionary statements of all products used in these tank mixtures. For mixing instructions, see the "MIXING, ADDITIVES and APPLICATION INSTRUCTIONS" section of this label.

Apply these tank mixtures in 10 to 20 gallons of water or 10 to 60 gallons of nitrogen solution per acre before, during or after planting, 00 not apply these mixtures after crop emergence.

When tank mixing with residual herbicides, add an agriculturally approved nonionic surfactant at 0.5 to 1 percent by volume of spray solution. The addition of 1 to 2 percent dry ammonium suffate by weight may increase the performance of this product.

NOTE: When using these tank mixtures, do not exceed 4 quarts of this product per acre.

CORN

For residual control, this product may be tank-mixed with the following herbicides or combination of herbicides:

LASSO/ALACHLOR

ATRAZINE

LARIATO

CYANAZINE

BULLETO

SIMAZINE

BICEPIN Dual_{um} PROWLIN

PARINERS

MICRO-TECH®

PARINERS

For improved burndown, this product may be tank-mixed with 2,4-0 or dicamba. Applications of 2,4-D or dicamba must be made at least 7 days prior to planting corn. See the "WEEDS CONTROLLED" section for specific rate information.

SOYBEANS

For residual control, this product may be tank-mixed with the following herbicides or combination of herbicides:

CANOPYN

LOROXIN PLUS

COMMAND[®] DUAL PREVIEWN PROWL

DUAL GEMINI™ LASSO/ALACHLOR

TURBOTH SCEPTERTH

LEXONE™ LINURON

SENCORFI SOUADRONIV

PURSUIT^{IN} PARTNER PURSUIT PLUSM MICRO-TECH®

For improved burndown, this product may be tank-mixed with the following herbicides:

2.4-08 2,4-D*

*See the label for 2.4-0 for intervals between application and planting.

CORN AND SOYBEANS

Annual Weeds—For difficult-to-control weeds such as fall panicum, barnyardgrass, crabgrass, shattercane and broadleaf signalgrass up to 2 inches tall, and Pennsylvania smartweed up to 6 inches tall, apply this product at 2 pints per acre in these tank mixtures. For other labeled annual weeds, apply 1 to 1.5 pints of this product per acre when weeds are less than 6 inches tall, and 2 to 3 pints when weeds are over 6 inches tall. For a complete list of annual weeds controlled, see the "WEEDS CONTROLLED" section of this label.

Perennial Weeds—At normal application times in minimum tillage systems, perennial weeds may not be at the proper stage of growth for control. See the "WEEDS CONTROLLED" section of this label for the proper stage of growth for perennial weeds.

Use of 2 to 4 quarts of this product per acre in the tank mixtures mentioned above, under these conditions provides top kill and reduces competition from many emerged perennial grass and broadleaf weeds. For emerged perennial weeds controlled, see the "WEEDS CONTROLLED" section of this label.

To obtain the desired stage of growth, it may be necessary to apply this product alone in the late summer or fall and then follow with a label-approved, seedling weed-control program at planting.

USE OF THESE TANK MIXTURES FOR BERMUDAGRASS OR JOHNSON-GRASS CONTROL IN MINIMUM TILLAGE SYSTEMS IS NOT RECOM-MENDED. For bermudagrass control, follow the instructions under "CONTROL OF PERENNIAL WEEDS" section of this label and then use a label-approved, seedling weed-control program in a minimum tillage or conventional tillage system. For Johnsburgrass control, follow instructions under "CONTROL OF PERENNIAL WEEDS" section of this label, and then use a label-approved, seedling weed-control program with conventional tillage.

PREHARVEST APPLICATIONS

When applied as directed under the conditions described, this product controls annual and perennial weeds listed on this label prior to the harvest of cotton, grain sorghum (milo), soybeans and wheat.

For specific rates and application instructions for control of various annual and perennial weeds, see the "WEEDS CONTROLLED" section of this label.

This product may be applied by both ground and aerial application equipment. DO NOT APPLY MORE THAN 1 QUART PER ACRE OF THIS PRODUCT BY AIR. See the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this tabel for instructions for ground and aerial applications.

NOTE: Do not apply to craps grown for seed. Reduction in germination or vigor may occur.

The use of this product for preharvest grain surghum (mito) is not registered in California.

SOYBEANS

Apply after pods have set and lost all green color. Allow a minimum of 7 days between application and harvest of soybeans. Care should be taken to avoid excessive seed shatter loss due to ground application equipment.

Do not graze or harvest treated crop for livestock feed within 25 days of last preharvest application.

DO NOT APPLY MORE THAN 6 QUARTS PER ACRE OF THIS PRODUCT FOR PREHARVEST APPLICATIONS.

Broadcast Applications—This product may be applied using either aerial or ground spray equipment. For ground applications with broadcast equipment, apply this product in 10 to 20 gallons of water per acre. For aerial applications, apply this product in 3 to 10 gallons of water per acre.

This product provides weed control and cotton regrowth inhibition when applied prior to the harvest of cotton. Apply 1 to 2 quarts of this product in 3 to 10 gallons of water per acre for cotton regrowth inhibition. Do not apply more than 2 quarts of this product per acre for preharvest applications. THE USE OF ADDITIVES FOR PREHARVEST APPLICATION TO COTTON IS PROHIBITED.

This product may be tank mixed with $DEF^{m} 6$, $Folex^{m}$, or $Prep^{m}$ to provide additional enhancement of cotton leaf drop.

Allow a minimum of 7 days between application and harvest of cotton.

Apply after sufficient bolls have developed to produce the desired yield of cotton. Applications made prior to this time could affect maximum yield potential.

Oo not feed or graze treated cotton forage or hay following preharvest applications.

GRAIN SORGHUM (M)LO)

Make applications at 30 percent grain moisture or less and at least 7 days prior to harvest.

Apply up to 2 quarts of this product per acre.

WHEAT

Apply after the hard-dough stage of grain (30 percent or less grain moisture) and at least 7 days prior to harvest.

DO NOT APPLY MORE THAN 1 QUART PER ACRE OF THIS PRODUCT FOR PREHARVEST APPLICATIONS TO WHEAT.

TREE AND VINE CROPS

This product is recommended for weed control in established groves, vineyards, and orchards, or for site preparation prior to transplanting crops listed in this section. Applications may be made with boom equipment, CDA, shielded sprayers, hand-held and high-volume wands, lances, orchard guns or with wiper applicator equipment, except as directed in this section. See the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label for specific information on use of equipment.

When applying this product, refer to the "WEEDS CONTROLLED" section of this label and to specific recommendations in this section for rates to be used.

NOTE

Repeal treatments may be necessary to control weeds originating from underground parts of untreated weeds or from seeds. This product does not provide residual weed control. For subsequent weed control, use repeated applications of this product. Do not apply more than 10.6 quarts of this product per acre per year.

EXTREME CARE MUST BE EXERCISED TO AVOID CONTACT OF HERBI-CIDE SOLUTION, SPRAY, DRIFT OR MIST WITH FOLIAGE OR GREEN BARK OF TRUNK, BRANCHES, SUCKERS, FRUIT OR OTHER PARTS OF TREES OR VINES. CONTACT OF THIS PRODUCT WITH OTHER THAN MATURED BROWN BARK CAN RESULT IN SERIOUS CROP DAMAGE.

AVOID PAINTING OUT STUMPS WITH THIS PRODUCT AS INJURY RESULTING FROM ROOT GRAFTING MAY OCCUR IN ADJACENT TREES.

Reduced control may result when applications are made to annual or perennial weeds that have been mowed, grazed or cut and have not been allowed to regrow to the recommended stage for treatment.

For specific rates of applications and instructions, see the "WEEDS CONTROLLED" section of this label, and to specific recommendations which follow.

MIDDLES MANAGEMENT

FOR ANNUAL WEEDS IN MIDDLES BETWEEN ROWS OF TREE AND VINE CROPS

For citrus crops, treat uniformly between trees.

Roundup Original	
Roundup Original plus GOAL	

This product alone or in mixtures with Goal will control or suppress the annual weeds listed below.

Apply the recommended rates of this product, either alone or in mixtures with Goal, plus 0.5 to 1 percent nonionic surfactant by spray volume in 3 to 10 gallons of water per acre. Apply when weeds are actively growing and less than 6 inches in height or diameter. If weeds are under drought stress, irrigate prior to application. Reduced control may occur if weeds have been mowed prior to application. Up to 48 fluid ounces per acre of this product may be used to control weeds, which have been mowed, are stressed or are growing in dense populations.

		,	
	ł	RATE PER A	CRE
	MAXLMUM	Roundup	
	HEIGHT/	Original	COAL
	DIAMETER	(FĽUIÐ	(FLUID
WEED SPECIES	(INCHES)	OUNCES)	OUNCES)
Market Property and the Contraction of	CONTRACTOR CONTRACTOR	INCOME CONTRACTOR	mak Arrichi
Burley	3.6		
Hordeum yulgare			
Bluegrass, annual			Paris 127 - 129
Poa annua		ļ.	
	The state of the s	The second section is a second	in the second
Barnyardgrass 3	266	23-125	
Lehwochloa crus, galle-E	1000	Transfer and	
Chickweed, common			
Stellaria media		ł	
	2-1850 PM PM 2 PM PM	100 Page 1 - 100 Page 1	112 ST 112 ST 122
Red Maids V F 695	的变形	品的性态等	能可能
Calandimia culiata			
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Crabgrass	1 6	i 16	
Digitaria spp.	Ť ·	NO 08	
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Groundsel, common		1	
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Lambsquarters, common			
Chenopodium album			
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Rocket, London			100
Sisymbrium irio			
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Shepherdspurse		1	-am-indi
Capsella bursa-pastoris	1		
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Chaeseweed, common	3	12 to 32 +	4 4 2 1 6
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- *Suppression only.
- **The mixture of this product plus Goal is recommended when weeds are stressed or growing in dense populations.

STRIPS

FOR ANNUAL AND PERENNIAL WEEDS IN STRIPS OF TREE AND VINE CROPS

TANK MIXTURES WITH RESIDUAL HERBICIDES

When applied as a tank mixture, this product provides control of the emerged annual weeds and control or suppression of emerged perennial weeds listed in this label. The following residual herbicides will provide preemergence control of those weeds listed in the individual product labels.

ROUNDUP® ORIGINAL plus GOAL 2XL	
ROUNDUP ORIGINAL plus KARMEXTM DF	
ROUNDUP ORIGINAL plus KROVAR I	
ROUNDUP ORIGINAL plus KROVAR II	
ROUNDUP ORIGINAL plus SIMAZINE, PRINCEP CALIBER 90	-
ROUNDUP DRIGINAL plus SIMAZINE 4L	
ROUNDUP ORIGINAL plus SIMAZINE 80W	=
ROUNDUP ORIGINAL plus SOLICAM™ 80DF	
ROUNDUP ORIGINAL plus SURFLAN AS	
ROUNDUP ORIGINAL SURFLAN 75W	
ROUNDUP ORIGINAL PIUS SIMAZINE (80W, of 4L, of Princep Caliber 90) Pius Surflan (AS of 75W)	

- ROUNDUP ORIGINAL plus GOAL 2XL plus SURFLAN (AS or 75W)
- ROUNDUP ORIGINAL plus GOAL 2XL plus SIMAZINE (80W. or 4L, or PRINCEP CALIBER 90)
- ROUNDUP ORIGINAL plus GOAŁ 2XL
 plus SURFLAN (AS or 75W)
 plus SURFLAN (AS or PRINCEP CALIBER 90)

Do not apply these tank mixtures in Puerto Rico.

When tank-mixing with residual herbicides, add an agriculturally approved nonionic sudactant at 0.5 to 1 percent by volume of spray solution.

Refer to the individual product labels for specific crops, rates, geographical restrictions and precautionary statements.

Read and carefully observe the label claims, cautionary statements, rates and all other information on the labels of all products.

RECOMMENDED RATES

Annual Weeds—Apply 1 to 5 quarts per acre of this product in these tank mixtures. Use rates at the higher end of the recommended range when weeds are stressed, growing in dense populations or are greater than 12 inches tall.

Perennial Weeds—Apply 1 pint to 5 quarts per acre of this product in these tank mixtures to control or suppress perennial weeds. Follow the recommendations in the "WEEDS CONTROLLED" section of this tabel for stage of growth and application rates for specific perennial weeds.

ROUNDUP® ORIGINAL plus GOAL plus SIMAZINE/SURFLAN

This product plus low rates of Goal in 3-way or 4-way mixtures with simazine and/or Surflan will provide posternergence control of the weeds listed below.

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Refer to the individual simazine and Surflan labels for preemergence rates, weeds controlled, precautionary statements and other important

Apply these tank mixtures in 3 to 40 gallons of water. Add 0.5 to 1 percent nonionic surfactant by total spray volume to the spray solution.

Apply 1 to 5 quarts per acre of this product plus 4 to 48 fluid ounces per acre of Goal plus labeled rates of simazine and/or Surflan to control the following weeds:

Horseweed/Marestail

Convza canadensis

Matricana matricariodes

Capsella bursa-pastoris

Nettle, stinging

Urtica dioica

Pineappleweed

Rocket, London

Sisymbrium irio

Shepherdspurse

Sowthistle, annual

Sonchus oleraceus

Barley, wild

Hordeum leporinum

Bluegrass, annual Poa annua

Cheeseweed, common Malva spp.

Chickweed, common Stellaria media

Filaree* Erodium spp.

Fleabane, hairy Convza bonariensis

Groundsel, common Senecio vulgaris

*Use a minimum of 1.5 quarts of this product in these mixtures.

NOTE: This recommendation does not preclude the use of Goal in these mixtures at higher, labeled rates for preemergence weed control.

PERENNIAL GRASS SUPPRESSION ORCHARD FLOORS

When applied as directed, this product will suppress vegetative growth as indicated below.

Bahiagrass

This product will provide significant inhibition of seedhead emergence and will suppress vegetative growth for a period of approximately 45 days with a single application and approximately 120 days with sequential applications. Apply this product 1 to 2 weeks after full green-up or after mowing to a uniform height of 3 to 4 inches. Applications must be made prior to seedhead emergence. Apply 6 fluid nunces of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 10 to 25 gallons of water per acre.

Sequential applications of this product plus nonionic surfactant may be made at approximately 45-day intervals to extend the period of seedhead and vegetative growth suppression. For continued seedhead suppression, sequential applications must be made prior to seedhead emergence. Apply no more than 2 sequential applications per year, As a first sequential application, apply 4 fluid ounces of this product plus nonionic surfactant. A second sequential application of 2 to 4 fluid ounces may be made approximately 45 days after the last application.

Bermudagrass

For burndown, apply 1 to 2 quarts of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 20 gallons of water per acre. Use it quart of this product in 3 to 20 gallons of water per acre east of the Rocky Mountains. Use 1 to 2 quarts of this product in 3 to 10 gallons of water per acre west of the Rocky Mountains. Use this treatment only if reduction of the bermudagrass stand can be tolerated. When burndown is required prior to harvest, allow at least 21 days to ensure sufficient time for burndown to occur.

Suppression only (east of the Rocky Mountains)-Apply 6 to 16 fluid ounces of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 20 gallons of water per acre no sooner than 1

to 2 weeks after full green-up. Mowing prior to application may occur provided a minimum height of 3 inches is maintained. Rates of 6 to 10 fluid ounces of this product plus nonionic surfactant should be used in shaded conditions or where a lesser degree of suppression is desired. Sequential applications may be made when regrowth occurs and bermudagrass injury and stand reduction can be tolerated.

Suppression only (west of the Rocky Mountains)—Apply 16 fluid ounces of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre to bermudagrass up to 6 inches in height and no sooner than 1 to 2 weeks after full greenup. Mowing prior to application may occur provided a minimum height of 3 inches is maintained. Sequential applications may be made when regrowth occurs and bermudagrass injury and stand reduction can be tolerated.

Cool Season Grass Covers

For suppression of tall fescue, fine fescue, orchardgrass and quackgrass, apply 8 fluid ounces of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 10 to 20 gallons of water per acre. For best suppression, add ammonium suffate to the spray solution at a rate of 2 percent by weight or 17 pounds per 100 gallons of spray solution.

For suppression of Kentucky bluegrass covers, apply 6 fluid ounces of this product plus 0.5 to 1 percent nonionic surfactant. Do not add ammonium sulfate.

For best results, mow cool-season grass covers in the spring to even their height and apply the recommended rate of this product 3 to 4 days after mowing. Avoid treating cool season grass covers under poor growing conditions, such as drought stress (drip irrigation), disease or insect damage.

LOW VOLUME APPLICATION (FLORIDA AND TEXAS)

For burndown or control of the weeds listed, apply the recommended rates of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 30 gallons of water per acre. Where weed foliage is dense, use 10 to 30 gallons of water per acre.

Annual Weeds

Goatweed—Apply 2 to 3 quarts per acre of this product plus 17 pounds of ammonium suitate per 100 gallons of water plus 0.5 to 1 percent nonionic surfactant by total spray volume. Apply in 20 to 30 gallons of water per acre when plants are actively growing. Use 2 quarts per acre when plants are less than 8 inches tall and 3 quarts per acre when plants are greater than 8 inches tall and 3 quarts than 8 inches tall, the addition of Krovar If or Karmex may improve control. Use labeled rates for these residual products.

Read and carefully observe the label claims, cautionary statements, rates and all other information on the Krovar II and Karmex labels.

Perennial Weeds

Apply when weeds are actively growing and at the growth stages listed in the "PERENNIAL WEEDS CONTROLLED" section of this label. If perennial weeds are mowed, allow weeds to regrow to the recommended stage of growth.

S = Suppression PC = Partial control	C = Control			
WEED Species	ROUNDUP® I qt	ORIGINAL 2 qts	RATE 3 qts	PER ACRE 5 qts
Bermudagrass	8	•	PC	c

Bermudagrass	8	• .	PC	C
Guineagrass				
Texas and Florida Ridge	B	С	€	С
Florida Natwoods	•	В	C	С
Paragrass	8	C	C	С
Tornedograss	2		PC	r

TREE CROPS

Citrus*****: calamondin, chironja, citron, grapefruit, kumquat, lemon, lime, mandarin orange, orange, pummelo, tangefo, tangerine, tangors.

Nuts**: almond, beechnut, Brazil nut, butternut, cashew, chestnuts, chinquapin, filbert, hazel nut, hickory nut, macadamia, pecan, pistachio, walnut

Pome Fruit****: apple, loquat, mayhaw, pear, quince.

Stone Fruit***: apricets, chemies, nectarines, olives, peaches, plums/

For charries, any application equipment listed in this section may beused in all states.

For cition and olives, apply as a directed spray only.

Any application equipment listed in this section may be used in apricots, nectarines, peaches and plums/prunes growing in Arizona, California, Cotorado, Idaho, Kansas, Kentucky, New Jersey, North Dakota, Oklahoma, Oregon, Iexas, Utah and Washington, except for peaches grown in the states specified in the following paragraph. In all other states use wiper equipment only.

For PEACHES grown in Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina and Tennessee only, apply with a shielded boom sprayer or shielded wiper applicator, which prevents any contact of this product with the foliage or bark of trees. Apply no later than 90 days after first bloom. Applications made after this time may result in severe damage. Remove suckers and low-hanging limbs at least 10 days prior to application. Avoid applications near trees with recent pruning wounds or other mechanical injury. Apply only near trees which have been planted in the orchard for 2 or more years. EXTREME CARE MUST BE TAKEN TO ENSURE NO PART OF THE PEACH TREE IS CONTACTED.

Iropical Fruit: acerola*, atemoya*, avocado*, banana*****. breadfruit*, canistel*, carambola*, cherimoya*, cocoa beans*, coffee****, dates*, figs*, genip*, guava*****, jaboticaba*, jackfruit*, longan*, lychee*, mango*, mayhaw*, papaya*****, passion fruit*, persimmons*, plantains****, pomegranate*, sapodilla*, sapote*, soursop*, sugar apple*, tamarind*, tea*, in coffee and banana, delay applications 3 months after transplanting to allow the new coffee or banana glant to become established.

NOTE:

- *Allow a minimum of 14 days between last application and harvest.
- **Allow a minimum of 3 days between last application and harvest of these crops, except pistachio nuts. For pistachio nuts allow a minimum of 21 days between last application and harvest
- ***Allow a minimum of 17 days between last application and
- ****Allow a minimum of 28 days between last application and harvest.
- *****Allow a minimum of 1 day between last application and harvest.

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VINE CROPS

Kiwi Eruit

Grapes: Any variety of table, wine or raisin grape may be treated with any equipment listed in this section.

Applications should not be made when green shoots, canes, or toliage are in the spray zone.

Allow a minimum of 14 days between last application and harvest.

In the northeast and Great Lakes regions, applications must be made prior to the end of bloom stage of grapes to avoid injury.

*Bullet, Lasso, Micro-Tech, Partner, Roundup and Lariat are registered trademarks of Monsanto Company.

Price of E.I. dupont de Nemours and Company.

^{IV}Dual, Bicep, Princep and Caliber are trademarks of Novartis Corporation.

TMSurfian is a trademark of DowElanco Products Company.

MBanvel and Solicam are trademarks of Sandoz, Inc.

INFotes and Prep are trademarks of Rhone-Poulenc, Inc.

¹⁹Goal is a trademark of Rohm and Raas Company.

MSencor and Turbo are trademarks of Bayer AG.

IMProwl, Pursuit, Pursuit Plus, Scepter and Squadron are trademarks of American Eyanamid Company.

PrCommand is a bademark of FMC Corporation.

MDEF is a tracement of Mobay Chemical Company.

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13

This product is protected by U.S. Patent No. 4,405,531. Other patents pending. No license granted under any non-U.S. patent(s).

EPA Reg. No. 524-445

In case of an emergency involving this product, Call Collect, day or night, (314) 694-4000.

©MONSANTO COMPANY 1998

MONSANTO COMPANY ST. LOUIS, MISSOURI 63167 U.S.A.

21154V1-1/53

This product is protected by U.S. Patent No. 4,405,531. Other patents pending No ficense granted under any non-U.S. patent(s).

EPA Reg. No. 524-445

21154V1-1/53

PERSONAL PROPERTY AND SECURE OF THE SECURE O

In case of an emergency involving this product, Call Collect, day or night, (314) 694-4000.

@MONSANTO COMPANY 1998

MONSANTO COMPANY ST. LOUIS, MISSOURI 63167 U.S.A.

Monsanto

Monsanto Company Suite 1100 700 14th Street, N.W. Washington, D.C. 20005

January 14, 1998

Hand Delivered

Office of Pesticide Programs
Document Processing Center (Final Printed Labeling)
U.S. Environmental Protection Agency
Room 266A, Crystal Mall #2
1921 Jefferson Davis Highway
Arlington, VA 22202

Attention:

Mr. James A. Tompkins (7505C)

Team Leader (25)

Subject:

Rascal Herbicide (EPA Reg. No. 524-445)

Submission of Final Printed Supplemental Labels

Aerial Application in California

Dear Mr. Tompkins:

On 17-Oct -97, Monsanto submitted to EPA proposed supplemental labeling for the above product using the Notification process. A label for aerial application of Roundup Herbicide (524-445) has already been approved, and this action was merely intended to extend this use to the alternate brand name "Rascal Herbicide". Five (5) copies of the Final Printed Label are enclosed for your records. It is identified by the Print Plate Number 21151V1-6 and is dated 17-Oct-97.

In the course of finalizing this label, quality assurance review discovered that an incorrect template had been used to produce the proposed labeling submitted to EPA on 17-Oct-97, so that it contained the CAUTION signal word rather than the proper WARNING wording as required on EPA Reg. No. 524-445. This error has been corrected in the Final Printed Labeling. Monsanto emphasizes that the incorrect labeling was not printed or distributed, and the error was confined solely to the draft text submitted to the Agency.

Mr. James A. Tompkins 14-Jan-98 Page 2

A copy of the Roundup Herbicide supplemental label for Aerial Application California is enclosed for your reference and comparison. It was originally approved by the Agency on 18-Mar-91 and the present version was submitted as Final Printed Labeling on 18-Mar-94. The only text change for the Rascal Herbicide label involve changes related to the brand name.

If you have any questions on this matter please feel free to contact me through Dr. Russell P. Schneider or directly at 314-694-1582.

Sincerely,

Stephen J. Wratten

Manager, Registrations '

cc;

R. P. Schneider

D. Fee-White

D. Rasmusson

A. Hedgecock

Please read instructions on reverse before completing form. United State Environmental Protect		OPP Identifier Number
Washington, DC		255266
Applica	ation for Pesticide - Section I	<u> </u>
1. Company/Product Number 524-445	2. EPA Product Manager Mr. James Tompkins	3. Proposed Classification
4.Company/Product (Name) Rascal® Herbicide	PM# 25	X None Restrict
5 Name and Address of Applicant (Include ZIP Code) Monsanto Company 700 14th Street, N.W., Suite 1100 Washington, DC 20005	6. Expedited Review. In accordance (b)(i), my product is similar or identical to: EPA Reg. No.	
Check if this is a new address	Product Name	
	Section - II	
Amendment - Explain below. Resubmission in response to Agency letter deted	Final printed labels in response to Agency letter deted "Me Too" Application.	
Notification - Explain below.	Other - Explain below.	1 E
Explanation: Use additional page(s) if necessary. (For sec	ction I and Section II.)	
Submission of final printed suppli application in California	emental labels for Rascal Herbicide /	erial
	Section - III	* **
Material This Product Will Be Packaged In:		
Child-Resistant Packaging Unit Packaging	Water Soluble Packaging 2. Type of Cont	teiner
Yes Yes		etal estic
No No	No GI	086
* Certification must Unit Packaging wgt. contain	1	per her (Specify)
3. Location of Net Contents Information 4. Size(s) Label 1 Conteiner	Retail Container 5. Location of Label D	rections
6. Manner in Which Label is Affixed to Product Pa	thograph sper glued tenciled	
	Section - IV	
1. Contact Point (Complete items directly below for identifie		s this application.)
Name Or Russell P. Schneider	Time Agricultural Regulation Tele	ophone No. (Include Area Coc 202) 783-2460
i centify that the statements I have made on this form	ification and all attachments thereto are true, accurate and comples statement may be punishable by fine or imprisonment or	6. Date Application Received (Stamped)
2. Signature	3. Title	- -
/Supil/Waite	Manager, Registrations	w.a.
4. Typed Namy Stephen J. Wratten, Ph.D.	5. Date January 14, 1998	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

PAPERWORK REDUCTION ACT NOTICE and INSTRUCTIONS

PERWORK REDUCTION ACT NOTICE: Public reporting burden for this collection of information is estimated to average 0.85 hour per se, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and ing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including tions for reducing this burden, to Chief, Information Policy Branch, (2136), U.S. Environmental Protection Agency, 401 M Street, SW, igton, DC 20460.

RECTIONS: This form is to be used for all applications for new registration, and use reregistration, amendment, resubmission, to applications ifications, final printed labeling, reregistration, etc. In order to process an application for a new registration submitted on this form, the ng material must accompany the application:

- Confidence with Respect to Citation of Data (EPA Form 8570-29). [If not exempted by 40 CFR 152.81 (b) (4)];
- Confidential Statement of Formula (EPA Form 8570-4);
- Formulator's Examption Statement (EPA Form 8570-27);
- Five copies of draft labeling:
- Three copies of any data submitted;
- Authorization letter where applicable;
- Matrices where applicable.

sion of Labeling - Labeling should first be submitted in the form of draft labels with all applications for new registration. Such draft labels may be orm of typed label text on 8.5 x 11 inch paper for submission or a mockup of the proposed label. If prepared for mockup, it should be icted in a way as to facilitate storage in an 8.5 x 11 inch file. Mockup labels significantly smaller than 8.5 x 11 inches should be mounted on 8.5 ch paper for submission.

ision of Date - Date submitted in support of this application must be submitted in accordance with PR Notice 86-5.

IFIC INSTRUCTIONS: Please read the instructions listed below before completing this application. First determine the type of registration listed in Block A, for which you are submitting this application. For applications submitted in connection with New Registration actions, Sections id IV must be completed by the applicant. For applications submitted in connection with amended reregistration actions, resubmissions, itions, reregistrations, etc., Sections I, II, and IV must be completed by the applicant.

t - Check the appropriate action for which you are submitting this form.

ION I - This coording must be completed, as applicable, for all registration actions.

impany/Product Number - Insert your Company Number, if one has been assigned by EPA. This number may have been assigned to you as a sic registrant, a distributor, or as an establishment. If your product is registered, insert the Product Number.

A Product Manager - If known, fill in the name and PM number of the EPA Product Manager....

oposed Classification - Specify the proposed classification of this product; John

oduct Name'. Enter the complete product name of this pesticide as it will appear on the label. The name must be specific to this product only. iplication of warms is not permitted among products of the same company. Do not include any brand name or company line designations. ime and Address of Applicant. The name of the firm or person and address shown in your application is the person or firm to whom the gistration will be issued. If you are acting in behalf of enother party, you must submit authorization from that party to act for them in registration atters. An applicant not residing in the United States must have an authorized agent residing in the United States to act for them in all pistration matters. The name and complete mailing address of such an agent must accompany this application.

pedited Review - FIFRA section-3 (c) 3 (B) provides for expedited review of applications for registration, or amendments to existing registrations. at are similar or identical to other pesticide products that are currently registered with the EPA. In order for your application to be eligible for pedited review, you must provide us with the EPA Registration Number and product name of the product you believe is similar to or identical to or product. The product must be similar or identical in both formulation and labeled uses.

10N II. This section must be completed for all applications submitted to emend the registration only of a currently registered product iment), for a resubmission in response to an Agency letter, for notifications to the Agency, for the submission of final printed labeling, for tration and for any other action that perteins to a specific EPA-registered product. This section is not to be used for a new application for ation. -

bject of submission - Check the applicable block and provide the Agency letter date if appropriate. Provide a brief explanation of the purpose(s) the submission, such as "the eddition of a site, pest or crop (specify)"; ramend the Confidential Statement of Formula by..."; "raregistration bmission"; "general label revision of use directions." Attach a separate page if edditional space is needed.

Contractive Engineering to the extra 10N: | Packaging and Container Information) - This Section must be completed for all applications submitted in connection with nev ation or applicable amendments.

xe}of Pac⊈aging - Check the appropriate block if your product will be packaged in the indicated packaging types.

icate the gize of the individual packets and number per retail container. be of Reisil Container - Indicate type of container in which product will be

🚻 Container - Indicate type of container in which product will be marketed.ii 🚟

sation of Net Contents - Indicate the location of the net contents information for your product.

e(s) of Betail Container - Specify the net contents of all retail containers for your product.

cation of Use Directions - Indicate the location of the use directions for your product.

nner in which label is affixed to product - indicated the method product label is attached to retail container.

ION IV (Contact Point) - This Section must be completed for all applications for Registration actions, i.e., new products registration, vission, "me-too," reregistration, etc.

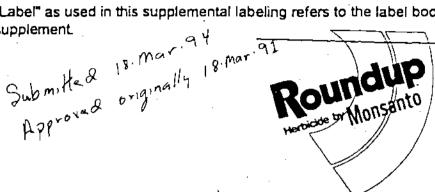
elf-explanatory. PA Use Only.

CERN Edduc (BERGE) (REV. R-C.) Previous materials are colonial.

SUPPLEMENTAL LABELING

READ AND FOLLOW THE ENTIRE LABEL BOOKLET FOR ROUNDUP® HERBICIDE BEFORE PROCEEDING WITH THE USE DIRECTIONS CONTAINED IN THIS SUPPLEMENTAL LABELING.

"Label" as used in this supplemental labeling refers to the label booklet for ROUNDUP herbicide and this supplement



EPA Rec. No. 524-445

FOR AERIAL APPLICATION IN CALIFORNIA ONLY.

Keep out of reach of children.

WARNING! AVISO!

In case of an emergency involving this product, Call Collect, day or night, (314) 694-4000.

ROUNDUP® is a registered trademark of Monsanto Company.

DIRECTIONS FOR USE

5 is a violation of Federal law to use this emphasi in any manner incomistent with its labeling.

This label must be in the possession of the user at the time of the herbicide application.

See "GENERAL INFORMATION" and "MOXING. ADDITIVES and APPLICATION INSTRUC-TIONS' sections of the Roundup label booklet. for essential product performance information,

See the "CROPPING SYSTEMS" of the label booklet for specific recommendations on the use of this product.

EXTREME CARE MUST BE EXERCISED TO AVOID CONTACT OF SPRAY WITH FOLIAGE GREEN STEAS, OR FRUIT OF DESIRABLE CROPS, PLANTS, TREES, OR OTHER DESIR-ABLE VEGETATION SINCE SEVERE DAMAGE OR DESTRUCTION MAY RESULT.

Aerial applications of this product are allowed in the following situations:

- in follow and reduced fillings systems prior to the emergence or transplanting of labeled
- In cofign, prior to harvest. Refer to the ROUNDUP® booldel for specific pre harvest application instructions.

Do not plant subsequent crops other than those listed in the label booklet for this product for 30 days following application.

When applied as recommended, under the conditions described, this product controls

annual and parennial weeds listed in the label bookset.

DO NOT EXCEED A MAXIMUM RATE OF 1 QUART PER ACRE OF THIS PRODUCT WHEN MAKING APPLICATIONS BY AIR.

AERIAL EQUIPMENT

Use the recommended rates of this product in 3 to 15 gallons of water per sore.

Do not apply to water, to areas where surface water is present or to insertical areas below the mean high water mark. Do not contaminate ter when disposing of equipment washwaters.

AVOID DRIFT - DO NOT APPLY WHEN WINDS ARE GUSTY OR UNDER ANY OTHER CONDI-TION WHICH WILL ALLOW DRIFT. DRIFT MAY CAUSE DAMAGE TO ANY VEGETATION CONTACTED TO WHICH TREATMENT IS NOT INTENDED. TO PREVENT INJURY TO ADJACENT DESIRABLE VEGETATION, AP-PROPRIATE BUFFER ZONES MUST BE MAINTAINED.

Use the following guidelines when serial applications are made near crops or desirable perennial vegetation after bud break and before total les drop, and/or near other desirable vegetation or ennual araps.

- 1. Do not apply within 100 feet of all desirable vegetation or crop(s).
- 2. If wind up to 5 miles per hour is blowing todesirable vegetation or crop(s), do not apply within 500 hundred feet of desirable vegetation or crop(s).
- Winds blowing from 5 to 10 miles per hour loward desirable vegetation may require buffer zones in excess of 500 lest.

4. Do not apply when Winds are in expess of 10 miles per hold or when inversion conditions

Course sprays are less they to drift; therefore, do not use nazzles or nazzle configurations which dispense spray or time array dropiets. Do not engle nozzles forward into the sinstream and do not incresse nazzie pressure.

Drift control additives may be used. When a drift control additive is used, read and carefully observe the cautionary statements and all other information and all other information appearing on the additive label.

Ensure uniform application - to moid strephed, uneven or overlapped application, use appropriste merlding devices.

Thoroughly wesh elected, especially building gear, after each day of apraying to remove residues of this product accumulated during spraying or form spills. PROLONGED EXPO-SURE OF THIS PRODUCT TO UNCOATED STEEL SURFACES MAY RESULT IN CORRO-SION AND POSSIBLE FAILURE OF THE PART. LANDING GEAR IS MOST SUSCEPTI-BLE. The maintanance of an organic cooling (paint) which meets perospage specification ML-C-38413 may prevent corrosion.

Read the "LIMIT of WARRANTY AND LIABS. ITY in the label booklet for Roundup herbicide before using this product. Those lerms apply to this supplemental labeling and if those terms are not acceptable, return the product unopened at

21001S1-2-3/17/94

OMONSANTO COMPANY 1994

MONSANTO COMPANY AGRICULTURAL PRODUCTS ST. LOUIS, MO 63167

SUPPLEMENTAL LABELING

READ AND FOLLOW THE ENTIRE LABEL BOOKLET FOR RASCAL® HERBICIDE BEFORE PROCEEDING WITH THE USE DIRECTIONS CONTAINED IN THIS SUPPLEMENTAL LABELING.

"Label" as used in this supplemental labeling refers to the label booklet for Rascal herbicide and this supplement.



MOT KAVIEWED

In Accordance with PT Notice E2-2.

HERBICIDE

Rascal is a registered trademark of Monsanto Company.

EPA Reg. No. 524-445 Based on Proft tobaling Dated

FOR AERIAL APPLICATION IN CALIFORNIA ONLY

Keep out of reach of children.

WARNING! AVISO!

In case of an emergency involving this product, Call Collect, day or night, 314-694-4000.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in any manner inconsistent with its labeling.

This label must be in the possession of the user at the time of the herbicide application.

See "GENERAL INFORMATION" and "MIXING, ADDITIVES and APPLICA-TION INSTRUCTIONS" sections of the Rascal herbicide label booklet for essential product performance information.

See the "CROPPING SYSTEMS" section of the label booklet for specific recommendations on the use of this product.

EXTREME CARE MUST BE EXER-CISED TO AVOID CONTACT OF SPRAY WITH FOLIAGE, GREEN STEMS, OR FRUIT OF DESIRABLE CROPS, PLANTS, TREES OR OTHER DESIR-ABLE VEGETATION, SINCE SEVERE

DAMAGE OR DESTRUCTION MAY RESULT.

Aerial applications of this product are allowed in the following situations.

- In fallow and reduced tillage systems prior to the emergence or transplanting of labeled crops.
- In cotton, prior to harvest. Refer to the Rascal herbicide booklet for specific preharvest application instructions.

Do not plant subsequent crops other than those listed in the label booklet for this product 30 days following application.

When applied as recommended under the conditions described, this product controls annual and perennial weeds listed in the label booklet.

DO NOT EXCEED A MAXIMUM RATE OF 1 OUART PER ACRE OF THIS PRODUCT WHEN MAKING APPLICATIONS BY AIR.

Aerial Equipment

Use the recommended rates of this, product in 3 to 15 gallons of water per acre.

Do not apply to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters.

AVOID DRIFT—DO NOT APPLY WHEN WINDS ARE GUSTY OR UNDER ANY OTHER CONDITION WHICH WILL ALLOW DRIFT. DRIFT MAY CAUSE DAMAGE TO ANY VEGETATION CONTACTED TO WHICH TREATMENT IS NOT INTENDED. TO PREVENT INJURY TO ADJACENT DESIRABLE VEGETATION, APPROPRIATE BUFFER ZONES MUST BE MAINTAINED.

Use the following guidelines when aerial applications are made near crops or desirable perennial vegetation after bud break and before total

leaf drop, and/or near other desirable vegetation or annual crops.

- Do not apply within 100 feet of all desirable vegetation or crop(s).
- If wind up to 5 miles per hour is blowing toward desirable vegetation or crop(s), do not apply within 500 feet of the desirable vegetation or crop(s).
- Winds blowing from 5 to 10 miles per hour toward desirable vegetation may require bufter zones in excess of 500 feet.
- Do not apply when winds are in excess of 10 miles per hour or when inversion conditions exist.

Coarse sprays are less likely to drift; therefore, do not use nozzles or nozzle configurations which dispense spray as fine spray droplets. Do not angle nozzles forward into the airstream and do not increase nozzle pressure.

Drift control additives may be used. When a drift control additive is used, read and carefully observe the cautionary statements and all other information appearing on the additive tabel. Ensure uniform application—To avoid streaked, uneven or overlapped application, use appropriate marking devices.

Thoroughly wash aircraft, especially landing gear, after each day of spraying to remove residues of this product accumulated during spraying or from spills. PROLONGED EXPOSURE OF THIS PRODUCT TO UNCOATED STEEL SURFACES MAY RESULT IN CORROSION AND POSSIBLE FAILURE OF THE PART. LANDING GEAR IS MOST SUSCEPTIBLE. The maintenance of an organic coating (paint) which meets aerospace specification MIL-C-38413 may prevent corrosion.

Read the 'LIMIT OF WARRANTY ANI LIABILITY' in the label booklet fo Rascal herbicide before using thi product. Those terms apply to thi supplemental labeling and if thos terms are not acceptable, return the product unopened at once.

©1997

Monsanto Company St. Louis, MO 63167 U.S.A.

21151V1-6

10/17/97

Monsanto

Monsanto Company Suite 1100 700 14th Street, N.W. Washington, D.C. 20005

January 5, 1998

Hand Delivered

Office of Pesticide Programs
Document Processing Center (Final Printed Labeling)
U.S. Environmental Protection Agency
Room 266A, Crystal Mall #2
1921 Jefferson Davis Highway
Arlington, VA 22202

Attention:

Mr. James A. Tompkins (7505C)

Team Leader (25)

Subject:

Rascal® Herbicide (EPA Reg. No. 524-445)

Submission of Final Printed Supplemental Labels

Aerial Application in Fresno County

Dear Mr. Tompkins:

On17-Oct-97, Monsanto submitted to EPA proposed supplemental labeling for the above product using the Notification process. A label for aerial application of Roundup® Herbicide (524-445) has already been approved, and this action was merely intended to extend this use to the alternate brand name "Rascal Herbicide". Five (5) copies of the Final Printed Label are enclosed for your records. It is identified by the Print Plate Number 21151V1-5 and is dated 20-Oct-97.

In the course of finalizing this label, quality assurance review discovered that an incorrect template had been used to produce the proposed labeling submitted to EPA on 17-Oct-97, so that it contained the CAUTION signal word rather than the proper WARNING wording as required on EPA Reg. No. 524-445. This error has been corrected in the Final Printed Labeling. Monsanto emphasizes that the incorrect labeling was not printed or distributed, and the error was confined solely to the draft text submitted to the Agency.

Mr. James A. Tompkins 5-Jan-98 Page 2

A copy of the Roundup Herbicide supplemental label for Aerial Application in Fresno County is enclosed for your reference and comparison. It was approved by the Agency on 9-Dec-93 and was submitted as Final Printed Labeling on 28-Jan-94. The only text change for the Rascal Herbicide label involves updating the telephone number to call if misuse is suspected.

If you have any questions on this matter please feel free to contact me through Dr. Russell P. Schneider or directly at 314-694-1582.

Sincerely,

Stephen J. Wratten

Manager, Registrations

cc:

R. P. Schneider

D. Fee-White

D. Rasmusson

A. Hedgecock

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PAPERWORK REDUCTION ACT NOTICE and INSTRUCTIONS

PAPERWORK REDUCTION ACT NOTICE: Public reporting burden for this collection of information is estimated to average 0.85 hour p response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Chief, Information Policy Branch, (2136), U.S. Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460.

INSTRUCTIONS: This form is to be used for all applications for new registration, and use reregistration, amendment, resubmission, to application for notifications, final printed labeling, reregistration, etc. In order to process an application for a new registration submitted on this form, the following material must accompany the application:

- Certification with Respect to Citation of Data (EPA Form 8570-29). [If not exempted by 40 CFR 152.81 (b) (4)];
- 2. Confidential Statement of Formula (EPA Form 8570-4);
- 3. Formulator's Exemption Statement (EPA Form 8570-27);
- 4. Five copies of draft labeling;
- 5. Three copies of any data submitted;
- 5. Authorization letter where applicable;
- Matrices where applicable.

Submission of Labeling - Labeling should first be submitted in the form of draft labels with all applications for new registration. Such draft labels may be in the form of typed label text on 8.5 x 11 inch paper for submission or a mockup of the proposed label. If prepared for mockup, it should be constructed in a way as to facilitate storage in an 8.5 x 11 inch file. Mockup labels significantly smaller than 8.5 x 11 inches should be mounted on 8.5 x 11 inch paper for submission.

Submission of Data - Data submitted in support of this application must be submitted in accordance with PR Notice 86-5.

SPECIFIC INSTRUCTIONS: Please read the instructions listed below before completing this application. First determine the type of registration action, listed in Block A, for which you are submitting this application. For applications submitted in connection with New Registration actions, Section I, III, and IV must be completed by the applicant. For applications submitted in connection with amended reregistration actions, resubmissions, notifications, reregistrations, etc., Sections I, II, and IV must be completed by the applicant.

Block A - Check the appropriate action for which you are submitting this form.

SECTION I - This section must be completed, as applicable, for all registration ections.

- Company/Product Number Insert your Company Number, if one has been assigned by EPA. This number may have been assigned to you as a
 basic registrant, a distributor, or as an establishment. If your product is registered, insert the Product Number.
- 2. EPA Product Manager.- If known, fill in the name and PM number of the EPA Product Manager......
- 3. Proposed Classification Specify the proposed classification of this product.
- 4. Product Name Enter the complete product name of this pesticide as it will appear on the label. The name must be specific to this product only. Duplication of names is not permitted among products of the same company. Do not include any brand name or company line designations.
- 5. Name and Address of Applicant The name of the firm or person and address shown in your application is the person or firm to whom the registration will be issued. If you are acting in behalf of another party, you must submit authorization from that party to act for them in registration matters. An applicant not residing in the United States must have an authorized agent residing in the United States to act for them in all registration matters. The name and complete mailing address of such an agent must accompany this application.
- 6. Expedited Review FIFRA section 3 (c) 3 (B) provides for expedited review of applications for registration, or amendments to existing registrations, that are similar or identical to other posticide products that are currently registered with the EPA. In order for your application to be eligible for expedited review, you must provide us with the EPA Registration Number and product name of the product you believe is similar to or identical to your product. The product must be similar or identical in both formulation and labeled uses.

SECTION II - This section must be completed for all applications submitted to emend the registration only of a currently registered product (Amendment), for a vesubmission in response to an Agency letter, for notifications to the Agency, for the submission of final printed labeling, for reregistration and for any other action that pertains to a specific EPA-registered product. This section is not to be used for a new application for registration.

1. Subject of submission - Check the applicable block and provide the Agency letter date if appropriate. Provide a brief explanation of the purpose(s) for the aubmission, such as "the addition of a site, pest or crop (specify)"; "amend the Confidential Statement of Formula by..."; "reregistration submission"; "general label revision of use directions." Attach a separate page if additional space is needed.

SECTION (III (Packaging and Container Information) - This Section must be completed for all applications submitted in connection with new registration or applicable amendments.

- Type of Packaging Check the appropriate block if your product will be packaged in the indicated packaging types.
 Indicate the size of the individual packets and number per retail container.
- 2. Type of Rates Container Indicate type of container in which product will be marketed.
- 3. Location of Net Contents Indicate the location of the net contents information for your product.
- 1. Size(s) of Retail Container Specify the net contents of all retail containers for your product.
- 5. Location of Use Directions Indicate the location of the use directions for your product,
- Manner in which label is affixed to product Indicated the method product label is attached to rateil container.

ECTION IV (Contact Point) - This Section must be completed for all applications for Registration actions, i.e., new products registration, submission, "me-too," reregistration, etc.

YYEM.S

Self-explanatory. EPA Use Only.

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SUPPLEMENTAL LABELING

READ AND FOLLOW THE ENTIRE LABEL FOR ROUNDUP® HERBICIDE AND THE "FOR AERIAL APPLICATION IN CALIFORNIA ONLY" SUPPLEMENTAL LABEL BEFORE PRO-CEEDING WITH THE USE DIRECTIONS CONTAINED IN THIS SUPPLEMENTAL LABELING.

"Label" as used in this supplemental labeling refers to the label booklet for Roundup herbicide, the "FOR AERIAL APPLICATION IN CALIFORNIA ONLY" supplemental label, and this supplement.

12/9/93 1/28/94



(EPA Reg. No. 524-445)

FOR AERIAL APPLICATION IN FRESNO COUNTY, CA ONLY FROM FEBRUARY 15 THROUGH MARCH 31 ONLY.

FOR AERIAL APPLICATION OUTSIDE THESE DATES, REFER TO THE "FOR AERIAL APPLICATION IN CALIFORNIA ONLY" STATEWIDE SUPPLEMENTAL LABEL.

Keep out of reach of children. **WARNING! AVISO!**

In case of an emergency involving this product, Call Collect, day or night, (314) 694-4000.

Roundup* is a registered trademark of Monsanto Company.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in any manner inconsistent with its labeling.

This label flust be in the possession of the user at the time of the herbicide application.

See the "GENERAL INFORMATION" and "MIXING, ADDITIVES AND APPLICATION INSTRUCTIONS" sections of the label booklet for essential product information.

See the "CROPPING SYSTEMS" section of the label-booklet for specific recommendations on the use of this product.

Applicable Area

This supplement only applies to the area contained inside the following boundaries within Fresno County, California only.

North: South: Fresno County line

Fast West Fresno County line State Highway 99 Fresno County line

GENERAL INFORMATION

Always read and follow the label directions and precautionary statements for all products used in the agrial application.

Observe the following directions to minimize offsite movement during aerial application of Roundup herbicide, Minimization of off-site movement is the responsibility of the grower, Pest Control Advisor, and aerial applicator.

Written Recommendations

A written recommendation MUST be submitted by or on behalf of the applicator to the Fresno County Agricultural Commissioner 24 hours prior to the application. This written recommendation MUST state the proximity of surrounding crops, and that conditions of each manufacturer's applicable product label(s) and this label have been satisfied.

Aerial Applicator Training and Equipment Aerial application of Roundup herbicide is limited to pilots who have successfully completed a Fresno County Agricultural Commissioner and California Department of Pesticide Regulation approved training program for aerial application of herbicides. All aircraft must be inspected, critiqued in flight, and certified at a Fresno County Agricultural Commissioner approved fly-in. Test and calibrate spray equipment at intervals sufficient to insure that proper rates of herbicides and adjuvants are being applied during commercial use. Applicator must document such calibrations and testing. Demonstration of performance at Fresno County Agricultural Commissioner approved "fly-ins" constitutes such documentation, or other written records showing calculations

and measurements of flight and spray parameters acceptable to the Fresno County Agricultural Commissioner.

Application at night - Do not apply this product by air earlier than 30 minutes prior to sunrise and/or later than 30 minutes after surset without prior permission from the Fresno County Agricultural Commissioner.

To report known or suspected misuse of Roundup herbicide, call 1-800-ROUNDUP.

Yor additional information on the proper serial application of Roundup herbicide, call (916) 784-1718.

Read the "LIMIT OF WARRANTY AND LIABILITY" in the label for Roundup herbicide before using this product. Those terms apply to this supplemental labeling and if those terms are not acceptable, return the product unopened at once.

MAP-3579-1/26/94

@ MONSANTO COMPANY 1994

MONSANTO COMPANY AGRICULTURAL PRODUCTS ST. LOUIS, MISSOURI 63167

SUPPLEMENTAL LABELING

READ AND FOLLOW THE ENTIRE LABEL FOR RASCAL® HERBICIDE AND THE "FOR AERIAL APPLICATION IN CALIFORNIA ONLY" SUPPLEMENTAL LABEL BEFORE PROCEEDING WITH THE USE DIRECTIONS CONTAINED IN THIS SUPPLEMENTAL LABELING.

"Label" as used in this supplemental labeling refers to the label booklet for Rascal herbicide, the "FOR AERIAL APPLICATION IN CALIFORNIA ONLY" supplemental label, and this supplement.



EPA Reg. No. 524-445

Rascal is a registered trademark of Monsanto Company.

FOR AERIAL APPLICATION IN FRESNO COUNTY, CA ONLY From February 15 through March 31 only.

For aerial application outside these dates, refer to the "FOR AERIAL" APPLICATION IN CALIFORNIA ONLY" statewide supplemental label.

Keep out of reach of children.

WARNING! AVISO!

In case of an emergency involving this product, Call Collect, day or night, (314) 694-4000.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in any manner inconsistent with its labeling.

This label must be in the possession of the user at the time of the harbicide application.

See the GENERAL INFORMATION and 'MIXING, ADDITIVES AND APPLICATION INSTRUCTIONS' sections of the label bodklet for essential product information. See the 'CROPPING SYSTEMS' section of the label booklet for specific recommendations on the use of this product.

Applicable Area

This supplement only applies to the area contained inside the following boundaries within Fresno County, California only.

North: Fresno County line Fresno County line South: State Highway 99 .. East: Fresno County line West:

General Information

Always read and follow the label directions and precautionary statements for all products used in the aerial application.

Observe the following directions to minimize off-site movement during aerial application of Rascal® herbicide. Minimization of off-site movement is the responsibility of the grower, Pest Control Advisor, and aerial applicator.

Written Recommendations

A written recommendation MUST be submitted by or on behalf of the applicator to Fresno Agricultural County

Commissioner 24 hours prior to the application. This written recommendation MUST state the proximity of surrounding crops, and that conditions of each manufacturer's applicable product label(s) and this label have been satisfied.

Aerial Applicator Training and Equipment

Aerial application of Rascal herbicide is limited to pilots who have successfully completed a Fresno County Agricultural Commissioner and California Department of Pesticide Regulation approved training program for aerial application of herbicides. All aircraft must be inspected, critiqued in flight, and certified at a Fresno Agricultural Commissioner approved fly-in. Test and calibrate spray equipment at intervals sufficient to insure that proper rates of herbicides and adjuvants are being applied during commercial use. Applicator must document such calibrations and testing. Demonstration of performance at Fresno County Agricultural Commissioner approved 'llyins' constitutes such documentation, or other written records showing calculations and measurements of flight and spray parameters acceptable to the Fresno County Agricultural Commissioner.

Application at night - Oo not apply this product by air earlier than 30 minutes prior to sunrise and/or later than 30 minutes after sunset without prior permission from the Fresno County Agricultural Commissioner.

To report known or suspected misuse of this product, call 1-800-332-3111.

For additional information on the proper aerial application of Rascal herbicide, call 916-784-1718.

Read the "LIMIT OF WARRANTY AND LIA-BILITY" in the label for Rascal herbicide before using this product. Those terms apply to this supplemental labeling and if those terms are not acceptable, return the product unopened at once.

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MONSANTO COMPANY ST. LOUIS, MISSOURI 63167 U.S.A.

10/20/97

21151V1-5

SUPPLEMENTAL LABELING

READ AND FOLLOW THE ENTIRE LABEL BOOKLET FOR ROUNDUP® HERBICIDE BEFORE PROCEEDING WITH THE USE DIRECTIONS CONTAINED IN THIS SUPPLEMENTAL LABELING.

"Label" as used in this supplemental labeling refers to the label booklet for ROUNDUP herbicide and this supplement.

Submitted 18 mar. 94
Approved originally 18 mar. 91

Roundup Horocoe by Monsento

EPA Reg. No. 524-465

FOR AERIAL APPLICATION IN CALIFORNIA ONLY.

Keep out of reach of children.

WARNING! AVISO!

In case of an emergency involving this product, Call Collect, day or night, (314) 694-4000.

ROUNDUP® is a registered trademark of Monsanto Company.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in any manner inconsistent with its labeling,

This label must be in the possession of the user at the time of the herbicide application,

See "GENERAL INFORMATION" and TADDING, ADDITIVES and APPLICATION INSTRUCTIONS' sections of the Roundup label booklet for essential product performance information.

See the "CROPPING SYSTEMS" of the label booldet for specific recommendations on the use of this product."

EXTREME CARE MUST BE EXERCISED TO AVOID CONTACT OF SPRAY WITH FOLIAGE, GREEN STEMS, OR FRUIT OF DESIRABLE CROPS, PLANTS, TREES, OR OTHER DESIRABLE VEGETATION SINCE SEVERE DAMAGE OR DESTRUCTION MAY RESULT.

Aertal applications of this product are allowed in the following adjustions:

- In follow and reduced tillage systems prior to the emergence or transplanting of labeled crops.
- In cotton, prior to harvest. Refer to the
 ROUNDUP® booldet for specific pre harvest appligition instructions.

On not plant subsequent crops other than those listed in the label booker for this product for 30 a days following application.

When applied as recommended, under the conditions described, this product controls

annual and perennial weeds listed in the label bookes.

DO NOT EXCEED A MAXIMUM RATE OF 1 QUART PER ACRE OF THIS PRODUCT WHEN MAKING APPLICATIONS BY AIR.

AERIAL EQUIPMENT

Use the recommended rates of this product in 3 to 15 gallons of water per sore.

Do not apply to water, to answe where surface water is present or to intertiable areas below the mean high water mark. Do not contaminate water when disposing of equipment wealwaters.

AVOID DRIFT - DO NOT APPLY WHEN WINDS ARE GUSTY OR UNDER ANY OTHER CONDITION WHICH WILL ALLOW DRIFT, DRIFT MAY CAUSE DAMAGE TO ANY VEGETATION CONTACTED TO WHICH TREATMENT IS NOT INTENDED, TO PREVENT INLIRY TO ADJACENT DESIRABLE VEGETATION, APPROPRIATE BUFFER ZONES MUST! BE MAINTAINED.

Use the following guidelines when serial applications are made near crops or desirable perennial vegetation after bud break and before total less drop, and/or near other desirable vegetation or ennual crops.

- Do not apply within 100 feet of all desirable vegetation or crop(s).
- 2. If wind up to 5 miles per hour is blowing toward desirable vegetation or crop(s), do not apply within \$00 hundred feet of the desirable vegetation or crop(s).
- Winds blowing from 5 to 10 miles per hour toward desirable regotation may require buffer zones in excess of 500 leat.

 Do not apply when winds are in scoess of 10 miles per hour or when inversion conditions adst.

Commo uprays are less likely to drift; therefore, do not use nozzies or nozzie configurations which dispanse spray as fine spray droplets. Do not angle nozzies forward into the sinstruom and do not increase nozzie praesure.

Orth control additives may be used. When a drift control additive is used, read and carefully observe the cautionary statements and all other information appearing on the additive label.

Emure uniform application - to evoid streated, uneven or overtapped application, use appropriate marking devices.

Thoroughly week aircraft, especially landing gear, efter each day of epriving to remove residues of this product accumulated during epriving or form spills, PROLONGED EXPOSURE OF THIS PRODUCT TO UNCOATED STEEL SURFACES MAY RESULT IN CORROSION AND POSSIBLE FAILURE OF THE PART. LANDING GEAR IS MOST SUSCEPTIBLE. The maintainmos of an organic coupling (paint) which meets serrespose specification MS.-C-28412 may prevent corresion.

Reed the "LMT of WARRANTY AND LIABL-ITY" in the label booldet for Roundarp herbicide before using this product. Those terms apply to this supplemental labeling and it those terms are not acceptable, return the product unopened at once.

2100151-2-3/17/94

@MONSANTO COMPANY 1994

MONSANTO COMPANY AGRICULTURAL PRODUCTS ST. LOUIS, MO 62167

SUPPLEMENTAL LABELING

READ AND FOLLOW THE ENTIRE LABEL BOOKLET FOR SILHOUETTE® HERBICIDE BEFORE PROCEEDING WITH THE USE DIRECTIONS CONTAINED IN THIS SUPPLEMENTAL LABELING.

"Label" as used in this supplemental labeling refers to the label booklet for Silhouette herbicide and this supplement.



EPA Reg. No. 524-445-1381

Silhouette is a registered trademark used under license.

FOR AERIAL APPLICATION IN CALIFORNIA ONLY

Keep out of reach of children.

WARNING! AVISO!

In case of an emergency involving this product, Call Collect, day or night, 314-694-4000.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in any manner inconsistent with its labeling.

This label must be in the possession of the user at the time of the herbicide application.

See "GENERAL INFORMATION" and "MIXING, ADDITIVES and APPLICA-TION INSTRUCTIONS" sections of the Silhouette herbicide label booklet for essential product performance information.

See the "CROPPING SYSTEMS" section of the label booklet for specific recommendations on the use of this product.

EXTREME CARE MUST BE EXER-CISED TO AVOID CONTACT OF SPRAY WITH FOLIAGE, GREEN STEMS, OR FRUIT OF DESIRABLE CROPS, PLANTS, TREES OR OTHER DESIR-ABLE VEGETATION, SINCE SEVERE

DAMAGE OR DESTRUCTION MAY RESULT.

Aerial applications of this product are allowed in the following situations.

- In fallow and reduced tillage systems prior to the emergence or transplanting of labeled crops.
- In cotton, prior to harvest. Refer to the Silhouette herbicide booklet for specific preharvest application instructions.

Do not plant subsequent crops other than those listed in the label booklet for this product 30 days following application.

When applied as recommended under the conditions described, this product controls annual and perennial weeds listed in the label booklet.

DO NOT EXCEED A MAXIMUM RATE OF 1 QUART PER ACRE OF THIS PRODUCT WHEN MAKING APPLICATIONS BY AIR.

Aerial Equipment

Use the recommended rates of this product in 3 to 15 gallons of water per acre.

Do not apply to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters.

AVOID DRIFT....DO NOT APPLY WHEN WINDS ARE GUSTY OR UNDER ANY OTHER CONDITION WHICH WILL ALLOW DRIFT. DRIFT MAY CAUSE DAMAGE TO ANY VEGETATION CONTACTED TO WHICH TREATMENT IS NOT INTENDED. TO PREVENT INJURY TO ADJACENT DESIRABLE VEGETATION, APPROPRIATE BUFFER ZONES MUST BE MAINTAINED.

Use the following guidelines when aerial applications are made near crops or desirable perennial vegetation after bud break and before total

leaf drop, and/or near other desirable vegetation or annual crops.

- 1. Do not apply within 100 feet of all desirable vegetation or crop(s).
- 2. If wind up to 5 miles per hour is blowing toward desirable vegetation or crop(s), do not apply within 500 feet of the desirable vegetation or crop(s).
- Winds blowing from 5 to 10 miles per hour toward desirable vegetation may require buffer zones in excess of 500 feet.
- Do not apply when winds are in excess of 10 miles per hour or when inversion conditions exist.

Coarse sprays are less likely to drift; therefore, do not use nozzles or nozzle configurations which dispense spray as fine spray droplets. Do not angle nozzles forward into the airstream and do not increase nozzle pressure.

Drift control additives may be used. When a drift control additive is used, read and carefully observe the cautionary statements and all other information appearing on the additive label. Ensure uniform application—To avoid streaked, uneven or overlapped application, use appropriate marking devices.

Thoroughly wash aircraft, especially landing gear, after each day of spraying to remove residues of this product accumulated during spraying or from spills. PROLONGED EXPOSURE OF THIS PRODUCT TO UNCOATED STEEL SURFACES MAY RESULT IN CORROSION AND POSSIBLE FAILURE OF THE PART. LANDING GEAR IS MOST SUSCEPTIBLE. The maintenance of an organic coating (paint) which meets aerospace specification MIL-C-38413 may prevent corrosion.

Read the "LIMIT OF WARRANTY ANI LIABILITY" in the label booklet fo Silhouette herbicide before using thi product. Those terms apply to thi supplemental labeling and if thos terms are not acceptable, return the product unopened at once.

Manufactured for: Cenex/Land O' Lakes Agronomy Company P.O. Box 64089

St. Paul, MN 55164 U.S.A.

21149V1-6

10/29/97

Monsanto

Monsanto Company Suite 1100 700 14th Street, N.W. . Washington, D.C. 20005

January 14, 1998

Hand Delivered

Office of Pesticide Programs
Document Processing Center (Final Printed Labeling)
U.S. Environmental Protection Agency
Room 266A, Crystal Mall #2
1921 Jefferson Davis Highway
Arlington, VA 22202

Attention:

Mr. James A. Tompkins (7505C)

Team Leader (25)

Subject:

Silhouette Herbicide (EPA Reg. No. 524-445-1381)

Submission of Final Printed Supplemental Labels

Aerial Application in California

Dear Mr. Tompkins:

On 28-Oct-97, Monsanto submitted to EPA proposed supplemental labeling for the above product using the Notification process. A label for aerial application of Roundup Herbicide (524-445) has already been approved, and this action was merely intended to extend this use to the alternate brand name "Silhouette Herbicide". Five (5) copies of the Final Printed Label are enclosed for your records. It is identified by the Print Plate Number 21149V1-6 and is dated 29-Oct-97.

In the course of finalizing this label, quality assurance review discovered that an incorrect template had been used to produce the proposed labeling submitted to EPA on 28-Oct-97, so that it contained the CAUTION signal word rather than the proper WARNING wording as required on EPA Reg. No. 524-445. This error has been corrected in the Final Printed Labeling. Monsanto emphasizes that the incorrect labeling was not printed or distributed, and the error was confined solely to the draft text submitted to the Agency.

Mr. James A. Tompkins 14-Jan-98 Page 2

A copy of the Roundup Herbicide supplemental label for Aerial Application California is enclosed for your reference and comparison. It was originally approved by the Agency on 18-Mar-91 and the present version was submitted as Final Printed Labeling on 18-Mar-94. The only text change for the Silhouette Herbicide label involve changes related to the brand name, distributor name, company number, and their decision not to include a telephone contact number.

If you have any questions on this matter please feel free to contact me through Dr. Russell P. Schneider or directly at 314-694-1582.

Sincerely,

Stephen J. Wratten | Manager, Registrations

cc: R. P. Schneider

D. Fee-White

D. Rasmusson

N. Zelmer, Cenex

Please read instructions on i	-verse hefore comole	tina form			Form Ann	roved	OMB No. 2	070-0060	Approval expires 05-31-98
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4. Company/Product (Name) Silhou	ette® Herbicio	le		РМ#	2	25		X	None Restricted
5. Name and Address of App Monsanto Co 700 14th St Washington,	mpany reet, N.W., Sı			(b)(i), m to:					FIFRA Section 3(c)(3) mposition and labeling
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Monsanto

Monsanto Company Suite 1100 700 14th Street, N.W. Washington, D.C. 20005

January 14, 1998

Hand Delivered

Office of Pesticide Programs
Document Processing Center (Final Printed Labeling)
U.S. Environmental Protection Agency
Room 266A, Crystal Mall #2
1921 Jefferson Davis Highway
Arlington, VA 22202

Attention:

Mr. James A. Tompkins (7505C)

Team Leader (25)

Subject:

Honcho Herbicide ((EPA Reg. No. 524-445)

Final Printed Labeling

Responsive to Notification dated 15-Oct-97

Dear Mr. Tompkins:

In my letter dated 7-Oct-97, Monsanto notified EPA of a new brand name "Honcho Herbicide" under the 524-445 registration number and provided draft labeling text. EPA peturned a copy stamped "Notification" Oct 15 1997" to confirm receipt.

Monsanto herein submits final printed labeling of the Honcho Herbicide booklet label. It is identified by Print Plate number 21152V1-3/53 and is dated 1997-1. This label is the basis for the other distributor supplemental labels notified to the Agency during autumn 1997; these include the brand names Buccaneer, Mirage, Silhouette, and Rattler.

The printed label is identical to the draft text submitted in October with the following minor changes:

Mr. Tompkins 14-Jan-98 Page 2

- Page 1 of the booklet: Add the word "herbicide" after "Honcho" in the title.
- Remove three restrictions on uses in California based on Cal EPA comments during their review of the text. These are:
 - 1. Page 47 of draft text and page 47 of booklet: Remove statement against control of Russian Olive.
 - 2. Page 76 of draft text and page 75 of booklet: Remove statement that Escort tank mixtures are not registered in California.
 - 3. Page 94 of draft text and page 92 of booklet: Remove statement that Partner is not registered in California.
- Page 106 of the booklet: alphabetize the crop "plantains", retaining the designation of a 28-day preharvest interval.
- Page 94 of the booklet: add the phrase "grain sorghum (milo)" to the first paragraph under the "Preharvest Applications" section to be consistent with the incorporation on Page 95 of use instructions for preharvest treatments on sorghum from a supplemental label.
- Page 107 of the booklet: update trademark references.

If you have any questions on this matter please feel free to contact me through Dr. Russell P. Schneider or directly at 314-694-1582.

Sincerely,

Stephen J. Wratten

Manager, Registrations

Ĉс:

R. P. Schneider

A. Hedgecock

D. Hinton

M. Brown

T. Staniforth

Please read instructions	on reverse before completing form.				Approval expires 05-31-98 OPP Identifier Number	
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· -	Honcho® Herbicide	25				
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5. Date

January 14, 1998

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PAPERWORK REDUCTION ACT NOTICE and INSTRUCTIONS

PAPERWORK REDUCTION ACT NOTICE: Public reporting burden for this collection of information is estimated to average 0.85 hour per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Chief, Information Policy Branch, (2136), U.S. Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460.

INSTRUCTIONS: This form is to be used for all applications for new registration, and use reregistration, amendment, resubmission, to applications for notifications, final printed labeling, reregistration, etc. In order to process an application for a new registration submitted on this form, the following-material must accompany the application:

- 1. Certification with Respect to Citation of Data (EPA Form 8570-29). (If not exempted by 40 CFR 152.81 (b) (4));
- 2. Confidential Statement of Formula (EPA Form 8570-4);
- 3. Formulator's Exemption Statement (EPA Form 8570-27);
- 4. Five copies of draft labeling;
- Three copies of any data submitted;
- 6. Authorization letter where applicable;
- Matrices where applicable.

Submission of Labeling - Labeling should first be submitted in the form of draft labels with all applications for new registration. Such draft labels may be in the form of typed label text on 8,5 x 1.1 inch paper for submission or a mockup of the proposed label. If prepared for mockup, it should be constructed in a way as to facilitate storage in an 8.5 x 11 inch file. Mockup labels significantly smaller than 8.5 x 11 inches should be mounted on 8.5 x 11 inch paper for submission.

Submission of Data - Data submitted in support of this application must be submitted in accordance with PR Notice 86-5.

SPECIFIC INSTRUCTIONS: Please read the instructions listed below before completing this application. First determine the type of registration action, listed in Block A, for which you are submitting this application. For applications submitted in connection with New Registration actions, Sections I. III. and IV must be completed by the applicant. For applications submitted in connection with amended reregistration actions, resubmissions, notifications, raregistrations, etc., Sections I, II, and IV must be completed by the applicant. Block At Check the appropriate action for which you are submitting this form.

SECTION 1 - This section must be completed, as applicable, for all registration actions.

- Company/Product Number Insert your Company Number, if one has been assigned by EPA. This number may have been assigned to you as basic registrent, a distributor, or as an establishment. If your product is registered, insert the Product Number.
- 2... EPA Product Manager If known, fill in the name and PM number of the EPA Product Manager.
- Proposed Classification Specify the proposed classification of this product.
- Product Name : Enter the complete product name of this pesticide as it will appear on the label. The name must be specific to this product only. Duplication of names is not permitted among products of the same company. Do not include any brand name or company line designations?
- 5. Name and Address of Applicant The name of the firm or person and address shown in your application is the person or firm to whom the registration will be issued. If you are acting in behalf of enother party, you must submit authorization from that party to act for them in registration matters. An applicant not residing in the United States must have an authorized agent residing in the United States to act for them in all registration matters. The name and complete mailing address of such an agent must accompany this application.
- 6. Expedited Review FIFRA section 3 (c) 3 (B) provides for expedited review of applications for registration, or amendments to existing registrations, that are similar or identical to other pesticide products that are currently registered with the EPA. In order for your application to be eligible for 🧃 expedited review, you must provide us with the EPA Registration Number and product name of the product you believe is similar to or identical to your product. The product must be similar or identical in both formulation and labeled uses.

SECTION II - This section must be completed for all applications submitted to amend the registration only of a currently registered product (Amendment), for a resubmission in response to an Agency letter, for notifications to the Agency, for the submission of final printed labeling, for reregistration and for any other action that pertains to a specific EPA-registered product. "This section is not to be used for a new application for 100 m 314 registration. ra, 1981, i nasadi sharibi

1. Subject of submission - Check the applicable block and provide the Agency latter date if appropriate. Provide a brief explanation of the purpose(s) for the submission, such as "the addition of a site, past or crop (specify)"; "amend the Confidential Statement of Formula by..."; "reregistration submission - "ceneral tabal revision of use directions." Attach a separate page if additional space is needed.

SECTION III (Packaging and Container Information) - This Section must be completed for all applications submitted in connection with new registration or opplicable amendments.

- 1. Type of Packaging Check the appropriate block if your product will be packaged in the indicated packaging types.
- Indicate the size of the individual packets and number per retail container.
- 2. Type of Retair Container Indicate type of container in which product will be marketed.
 3. Location of New Contains Indicate the location of the net contents information for your product.
- 4. Sizels of Recall Coutainer Specify the net contents of all retail containers for your product. 5. Location of Use Directions - It Liucte the location of the use directions for your product.
- 6. Manner in which label is affixed to product Indicated the method product lebel is attached to retail/container. 💉

SECTION IV (Contact Point) - This Section must be completed for all applications for Registration actions, i.e., new products registration, resubmission, "me-too," reregistration, etc.

- 1-5. Self-explanatory.
- B. EPA Use Only.

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HERBICIDE

Complete Directions for Use

MOT REVIEWED In Accordance with FR Notice 82-2. Coded on Draft Labeling Dated EPA Reg. No. 524445

AVOID CONTACT WITH FOLIAGE. GREEN STEMS, EXPOSED NON-WOODY ROOTS OR FRUIT OF CROPS, DESIRABLE PLANTS AND TREES, SINCE SEVERE INJURY OR DESTRUCTION MAY RESULT.

1997-1

21152V1-3/53



HERBICIDE

Complete Directions for Use

EPA Reg. No. 524-445

AVOID CONTACT WITH FOLIAGE, GREEN STEMS, EXPOSED NON-WOODY ROOTS OR FRUIT OF CROPS, DESIRABLE PLANTS AND TREES, SINCE SEVERE INJURY OR DESTRUCTION MAY RESULT.

1997-1

21152V1-3/53

2

Read the entire label before using this product.

tise only according to label instructions.

Read "LIMIT OF WARRANTY AND LIABILITY" before buying or using. If terms are not acceptable, return at once unopened.

REFORMULATION IS PROHIBITED. SEE INDIVIDUAL CONTAINER LABEL FOR REPACKAGING LIMITATIONS.

LIMIT OF WARRANTY AND LIABILITY

This Company warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes set forth in the Complete Directions for Use label booklet ("Directions") when used in accordance with those Directions under the conditions described therein. NO OTHER EXPRESS WARRANTY OR IMPLIED WARRANTY OF FITNESS FOR PARTICULAR PURPOSE OR MERCHANTABILITY IS MADE. This warranty is also subject to the conditions and limitations stated herein.

Buyer and all users shall promptly notify this Company of any claims whether based in contract, negligence, strict liability, other tort or otherwise.

Buyer and all users are responsible for all loss or damage from use or handling which results from conditions beyond the control of this Company, including, but not limited to, incompatibility with products other than those set forth in the Directions, application to or contact with desirable vegetation, unusual weather, weather conditions which are outside the range considered normal at the application site and for the time period when the product is applied, as well as weather conditions which are outside the application ranges set forth in the Directions, application any manner not explicitly set forth in the Directions, moisture conditions outside the moisture range specified in the Directions or the presence of products other than those set forth in the Directions in or on the soil, crop or treated vegetation.

THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE LIMIT OF THE LIABILITY OF THIS COMPANY OR ANY OTHER SELLER FOR ANY AND ALL LOSSES, INJURIES OR DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT (INCLUDING CLAIMS BASEO IN CONTRACT, NEGLIGENCE, STRICT LIABILITY, OTHER TORT OR OTHERWISE) SHALL BE THE PURCHASE PRICE PAID BY THE USER OR BUYERFOR THE QUANTITY OF THIS PRODUCT INVOLVED, OR, AT THE ELECTION OF THIS COMPANY OR ANY OTHER SELLER, THE REPLACEMENT OF SUCH QUANTITY, IN NOT ACQUIRED BY PURCHASE, REPLACEMENT OF SUCH QUANTITY IN NO EVENT SHALL THIS COMPANY OR ANY OTHER SELLER BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES.

Buyer and all users are deemed to have accepted the terms of this LIMIT OF WARRANTY AND LIABILITY which may not be varied by any verbal or written agreement.

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PRECAUTIONARY STATEMENTS	
ENVIRONMENTAL HAZARDS	
INGREDIENTS	
STORAGE AND DISPOSAL	
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NONEROP USES	
CROPPING SYSTEMS.	Tru

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

Keep out of reach of children.

WARNING! AVISO!

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detafle. (If you do not understand the label, find someone to explain it to you in detail.)

CAUSES SUBSTANTIAL BUT TEMPORARY EYE INUURY

HARMFUL IF SWALLOWED OR INHALEO.

Do not get in eyes or on clothing.

Avoid breathing vapor or spray mist.

FIRST AID: IF IN EYES, immediately hold eyelids open and flush with plenty of water for at least 15 minutes. Get medical attention.

IF INHALED, remove individual to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. Get medical attention.

IF SWALLOWED, this product will cause gastrointestinal tract irritation. Immediately dilute by swallowing water or milk. Get medical attention. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON.

Personal Protective Equipment (PPE)

Applicators and other handlers must wear: long-sleeved shirt and long pants, shoes plus socks, and protective eyewear. Discard clothing and other absorbent materials that have been denched or heavily contaminated with this product's concentrate. Do not reuse them, follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in Worker Protection Standard (WPS) for agricultural pesticides (40 CFR 170.240 (d) (4-6)), the handler PPE requirements may be reduced or modified as specified in the WPS.

User Safety Recommendations:

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

In case of an emergency involving this product, Call Collect, day or night, (314) 694-4000.

Environmental Hazards

Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters.

Physical or Chemical Hazards

Spray solutions of this product should be mixed, stored and applied using only staintess steel, aluminum, fiberglass, plastic or plastic-lined steel containers.

DO NOT MIX, STORE OR APPLY THIS PRODUCT OR SPRAY SOLUTIONS OF THIS PRODUCT IN GALVANIZED STEEL OR UNLINED STEEL (EXCEPT STAINLESS STEEL) CONTAINERS OR SPRAY TANKS. This product or spray solutions of this product react with such containers and tanks to produce hydrogen gas which may form a highly combustible gas mixture. This gas mixture could flash or explode, causing serious personal injury, if ignited by open flame, spark, welder's torch, lighted cigarette or other ignition source.

ACTIVE INGREDIENT:

- *Contains 480 grams per litre or 4 pounds per U.S. gallon of the active ingredient glyphosate, in the form of its isopropylamine salt. Equivalent to 356 grams per litre or 3 pounds per U.S. gallon of the acid, glyphosate.

This product is protected by U.S. Patent No. 4,405,531. Other patents pending. No license granted under any non-U.S. patent(s).

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in any manner inconsistent with its labeling. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulations.

Agricultural Use Requirements

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is: coveralls, waterproof gloves, shoes plus secks, and protective

Non-Agricultural Use Requirements

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries or greenhouses.

Keep people and pets off treated areas until spray solution has dried to prevent transfer of this product onto desirable vegetation.

For more product information, call toll-free 1-800-332-3111

Storage and Disposal

Do not contaminate water, foodstuffs, feed or seed by storage or disposal.

See container label for STORAGE AND DISPOSAL instructions

GENERAL INFORMATION

DO NOT APPLY THIS PRODUCT USING AERIAL SPRAY EQUIPMENT EXCEPT UNDER CONDITIONS AS SPECIFIED WITHIN THIS LABEL.

This product, a water soluble liquid, mixes readily with water to be applied as a foliar spray for the control or destruction of most herbaceous plants. It may be applied through most standard industrial or field-type sprayers after dilution and thorough mixing with water in accordance with label instructions.

This product moves through the plant from the point of foliage contact to and into the root system. Visible effects on most annual weeds occur within 2 to 4 days, but on most perennial weeds may not occur for 7 days or more. Extremely cool or cloudy weather following treatment may slow activity of this product and delay visual effects of control. Visible effects are a gradual wilting and yellowing of the plant which advances to complete browning of above-ground growth and deterioration of underground plant parts.

Unless otherwise specified on this label, delay application until vegetation has emerged and reached the stages described for control of such vegetation under the "WEEDS CONTROLLEO" section of this label. Unemerged plants arising from unattached underground rhizomes or root slocks of perennials will not be affected by the herbicide and will continue to grow. For this reason, best control of most perennial weeds is obtained when treatment is made at late growth stages approaching maturity.

Always use the higher rate of this product per acre within the recommended range when (1) weed growth is heavy or dense, or (2) weeds are growing in an undisturbed (noncultivated) area.

Do not treat weeds under poor growing conditions such as drought stress, disease or insect damage, as reduced weed control may result. Reduced results may also occur when treating weeds heavily covered with dust.

Reduced control may result when applications are made to annual or perennial weeds that have been mowed, grazed, or cut, and have not been allowed to regrow to the recommended stage for treatment.

Rainfall or irrigation occurring within 6 hours after application may reduce effectiveness. Heavy rainfall or irrigation within 2 hours after application may wash the chemical off the foliage and a repeat treatment may be required.

This product does not provide residual weed control. For subsequent residual weed control, follow a label-approved herbicide program. Read and carefully observe the cautionary statements and all other information appearing on the labels of all herbicides used.

Buyer and all users are responsible for all loss or damage in connection with the use or handling of mixtures of this product with herbicides or other materials that are not expressly recommended in this labeling. Mixing this product with herbicides or other materials not recommended on this label may result in reduced performance.

For best results, spray coverage should be uniform and complete. Do not spray weed foliage to the point of runoff.

DOMESTIC ANIMALS: This product is considered to be relatively nontoxic to dogs and other domestic animals; however, ingestion of this product or large amounts of freshly sprayed vegetation may result in temporary gastrointestinal irritation (vomiting, diarrhea, colic, etc.). If such symptoms are observed, provide the animal with plenty of fluids to prevent dehydration. Call a veterinarian if symptoms persist for more than 24 hours.

ATTENTION

Avoid Orift. Extreme care must be used when applying this product to prevent injury to desirable plants and crops.

Do not allow the herbicide solution to mist, drip, drift or splash onto desirable vegetation since minute quantities of this product can cause severe damage or destruction to the crop, plants or other areas on which treatment was not intended. The fixelihood of injury occurring from the use of this product is greatest when winds are gusty or in excess of 5 miles per hour or when other conditions, including lesser wind velocities, will allow spray drift to occur. When spraying, avoid combinations of pressure and nozzle type that will result in splatter or fine particles (mist) which are likely to drift. AVOID APPLYING AT EXCESSIVE SPEED OR PRESSURE.

NOTE: Use of this product in any manner not consistent with this tabel may result in injury to persons, animals or crops, or other unintended consequences. Keep container closed to prevent spills and contamination.

MIXING, ADDITIVES AND APPLICATION INSTRUCTIONS

APPLY THESE SPRAY SOLUTIONS IN PROPERLY MAINTAINED AND CALIBRATED EQUIPMENT CAPABLE OF DELIVERING DESIRED VOLUMES. DO NOT APPLY WHEN WIND OR OTHER CONDITIONS FAVOR

DRIFT. HAND-GUN APPLICATIONS SHOULD BE PROPERLY DIRECTED TO AVOID SPRAYING DESIRABLE PLANTS. NOTE: REDUCED RESULTS MAY OCCUR IF WATER CONTAINING SOIL IS USED. SUCH AS WATER FROM PONDS AND UNLINED DITCHES.

MIXING

This product mixes readily with water. Mix spray solutions of this product as follows: Fill the mixing or spray tank with the required amount of water. Add the recommended amount of this product (see the "DIRECTIONS FOR USE" and "WEEOS CONTROLLED" sections of this label) near the end of the filling process and mix well. Use caution to avoid siphoning back into the carrier source. Use approved anti-back-siphoning devices where required by state or local regulations. During mixing and application, foaming of the spray solution may occur. To prevent or minimize foam, avoid the use of mechanical agilators, terminate by-pass and return lines at the bottom of the tank and, if needed, use an approved anti-foam or defoaming agent.

TANK MIXTHRES

Always predetermine the compatibility of labeled tank mixtures of this product with water carrier by mixing small proportional quantities in advance.

Mix labeled tank mixtures of this product with water as follows:

- 1. Place a 20 to 35 mesh screen or welting basket over filling port.
- Through the screen, fill the spray tank one-half full with water and start agitation.
- If a wettable powder is used, make a sturry with the water carrier, and add it SLOWLY through the screen into the tank. Continue agitation.
- If a flowable formulation is used, premix one part flowable with one part water. Add diluted mixture SLOWLY through the screen into the tank. Continue agitation.
- If an emulsifiable concentrate formulation is used, premix one part emulsifiable concentrate with two parts water. Add diluted mixture slowly through the screen into the tank. Continue agitation.
- Continue filling the spray tank with water and add the required amount of this product near the end of the filling process.
- Where nonionic surfactant is recommended, add this to the spray tank before completing the filling process.
- Add individual formulations to the spray tank as follows: wettable powder, flowable, emulsifiable concentrate, drift control additive, water soluble liquid followed by surfactant.

Maintain good agitation at all times until the contents of the tank are sprayed. If the spray mixture is allowed to settle, thorough agitation is required to resuspend the mixture before spraying is resumed.

Keep by-pass line on or near bottom of tank to minimize foaming. Screen size in nozzle or line strainers should be no finer than 50 mesh. Carefully select proper nozzle to avoid spraying a fine mist. For best results with conventional ground application equipment, use flat fan nozzles.

Clean sprayer and parts immediately after using this product by thoroughly floshing with water.

ADDITIVES

SURFACTANTS

Nonionic surfactants which are labeled for use with herbicides may be used. On not reduce rates of this product when adding surfactant. When adding additional surfactant, use 0.5 percent surfactant concentration (2 quarts per 100 gallons of spray solution) when using surfactants which contain at least 70 percent active ingredient or a 1 percent surfactant concentration (4 quarts per 100 gallons of spray solution) for those surfactants containing less than 70 percent active ingredient. Read and carefully observe surfactant cautionary statements and other information appearing on the surfactant label.

AMMONIUM SULFATE

The addition of 1 to 2 percent dry ammonium sulfate by weight or 8.5 to 17 pounds per 109 gallons of water may increase the performance of this product, and this product plus 2.4-0, Banveli^M or residual herbicide tank mixtures on annual and perennial weeds. The improvement in performance may be apparent where environmental stress is a concern. Low-quality ammonium sulfate may contain material that will not readily dissolve, which could result in nozzle tip plugging. To determine quality, perform a jar test by adding 1/3 cup of ammonium sulfate to 1 gallon of water and agitate for 1 minute. If undissolved sediment is observed, predissolve the ammonium sulfate in water and filter prior to addition to the spray tank. If ammonium sulfate is added directly to the spray tank, add slowly with agitation. Adding too quickly may clog outlet line. Ensure that ammonium sulfate is completely dissolved in the spray tank before adding herbicides or surfactant. Thoroughly rinse the spray system with clean water after use to reduce corrosion.

NOTE: The use of ammonium sulfate as an additive does not preclude the need for additional surfactant. Do not use herbicide rates lower than recommended in this label.

COLORANTS OR DYES

Agriculturally-approved colorants or marking dyes may be added to this product. Colorants or dives used in spray solutions of this product may reduce performance, especially at lower rates or dilutions. Use colorants or dives according to the manufacturer's recommendations.

APPLICATION EQUIPMENT AND TECHNIQUES

Do not apply this product through any type of irrigation system.

This product may be applied with the following application equipment:

Aerial—Fixed Wing and Helicopter

Broadcast Spra

Controlled Droplet Applicator (CDA)—Hand-held or boommounted applicators which produce a spray consisting of a narrow range of droplet sizes.

Hand-Held and High-Volume Spray Equipment—Knapsack and backpack sprayers, bump-up pressure sprayers, handguns, handwands, mistblowers*, lances and other hand-held and motorized spray equipment used to direct the spray onto weed foliage.

This product is not registered in California or Arizona for use in mistblowers.

Selective equipment—Recirculating sprayers, shielded sprayers and wiper applicators.

See the appropriate part of this section for specific instructions and rates of application.

AERIAL EQUIPMENT

Use the recommended rates of this harbicide in 3 to 15 gallons of water per acre unless otherwise specified on this label. See the "WEEOS CONTROLLED" section of this label for specific rates. Unless otherwise specified, do not exceed 1 quart per acre. Aerial applications of this product may be made in annual cropping conventional tillage systems, fallow and reduced tillage systems and preharvest applications. Refer to the individual use area sections of this label for recommended volumes and application rates. FOR AERIAL APPLICATION IN CALIFORNIA, REFER TO THE FEDERAL SUPPLEMENTAL LABEL FOR AERIAL APPLICATIONS IN THAT STATE FOR SPECIFIC INSTRUCTIONS, RESTRICTIONS AND REQUIREMENTS.

Avoid direct application to any body of water.

AVOID DRIFT—DO NOT APPLY DURING LOW-LEYEL INVERSION CON-DITIONS, WHEN WINDS ARE GUSTY OR UNDER ANY OTHER CONDI-TION WHICH FAVORS DRIFT. DRIFT MAY CAUSE DAMAGE TO ANY VEGETATION CONTACTED TO WHICH TREATMENT IS NOT INTENDED. TO PREVENT INJURY TO ADJACENT DESIRABLE VEGETATION, APPROPRIATE BUFFER ZONES MUST BE MAINTAINED.

Coarse sprays are less likely to drift; therefore, do not use nozzles or nozzle configurations which dispense spray as fine spray droplets. Do not angle nozzles forward into the airstream and do not increase spray volume by increasing nozzle pressure.

Drift control additives may be used. When a drift control additive is used, read and carefully observe the cautionary statements and all other information appearing on the additive label.

Ensure uniform application—To avoid streaked, uneven or overlapped application, use appropriate marking devices.

Thoroughly wash aircraft, especially landing gear, after each day of spraying to remove residues of this product accumulated during spraying or from spills. PROLONGED EXPOSURE OF THIS PRODUCT TO UNCOATED STEEL SURFACES MAY RESULT IN CORROSION AND POSSIBLE FAILURE OF THE PART. LANDING GEAR ARE MOST SUSCEPTIBLE. The maintenance of an organic coating (paint), which meets aerospace specification MIL-C-38413, may prevent corrosion.

This product plus Oust¹⁰, Banvel or 2,4-0 tank mixtures may not be applied by air in California.

BROADCAST EQUIPMENT

For control of annual or perennial weeds fisted on this label using broadcast equipment—Use the recommended rates of this product in 3 to 40 gallons of water per acre as a broadcast spray unless otherwise specified on this label. See the "WEEOS CONTROLLED" section of this label for specific rates. As density of weeds increases, spray volume should be increased within the recommended range to ensure complete coverage. Carefully select proper nozzle to avoid spraying a fine mist. For best results with ground application equipment, use flat fan nozzles. Check for even distribution of spray droplets.

CONTROLLED DROPLET APPLICATION (CDA)

The rate of this product applied per acre by vehicle-mounted CDA equipment must not be less than the amount recommended in this label when applied by conventional broadcast equipment. For vehicle-mounted CDA equipment, apply 3 to 15 gallons of water per acre.

For the control of labeled annual weeds with hand-held CDA units, apply a 20 percent solution of this product at a flow rate of 2 fluid ounces per minute and a walking speed of 1.5 mph (1 quart per acre). For the control of labeled perennial weeds, apply a 20 to 40 percent solution of this product at a flow rate of 2 fluid ounces per minute and a walking speed of 0.75 mph (2 to 4 quarts per acre).

Controlled droplet application equipment produces a spray pattern which is not easily visible. Extreme care must be exercised to avoid spray or drift contacting the foliage or any other green tissue of desirable vegetation, as damage or destruction may result.

HAND-HELD and HIGH-VOLUME EQUIPMENT

Use coarse sprays only.

Mix this product in clean water and apply to foliage of vegetation to be controlled. For applications made on a spray-to-wet basis, spray coverage should be uniform and complete. On not spray to the point of runoff.

For control of annual weeds listed on this label, apply a 0.5 percent solution of this product plus nonionic surfactant to weeds less than 6 inches in height or runner length. Apply prior to seedhead formation in grass or bud formation in broadleaf weeds. Allow three or more days before tillage or mowing.

For annual weeds over 6 inches tall, or when not using additional surfactant, or unless otherwise specified, use a 1 percent solution. For best results, use a 2 percent solution on harder-to-control perennials,

such as bermudagrass, dock, field bindweed, hemp dogbane, milk-weed and Canada thistle.

When using application methods which result in less than complete coverage, use a 5 percent solution for annual and perennial weeds and a 5 to 10 percent solution for woody brush and trees.

Prepare the desired volume of spray solution by mixing the amount of this product in water as shown in the following table:

Spray Solution

		Amount of Hancho®					
Desired Volume	1/2%	1%	11/2%	2%	5%	10%	
1 Gel 25 Gel 100 Gel	i/s oz I pl 2 qt	11/3 02 1 qt 1 gal	2 oz 11/2 qt 11/2 gal	2 ² /3 oz 2 qi 2 gal	61/2 oz 5 qt 5 gal	13 oz 10 qt 10 ga	
100 Gal 2 tablesp	- 4.	- 5-		2 ga1	5 ga:	10	

For use in knapsack sprayers, it is suggested that the recommended amount of this product be mixed with water in a larger container. Fith sprayer with the mixed solution.

SELECTIVE EQUIPMENT

This product may be applied through a recirculating spray system, a shielded applicator, or a wiper applicator after dilution and thorough mixing with water to listed weeds growing in any noncrop site specified on this tabel and only when specifically recommended in cropping systems.

A recirculating spray system directs the spray solution onto weeds growing above desirable vegetation, while spray solution not intercepted by weeds is collected and returned to the spray tank for reuse.

A shielded applicator directs the herbicide solution onto weeds, while shielding desirable vegetation from the herbicide.

A wiper applicator applies the herbicide solution onto weeds by rubbing the weed with an absorbent material containing the herbicide solution.

AVOID CONTACT WITH DESIRABLE VEGETATION.

Contact of the herbicide solution with the desirable vegetation may result in damage or destruction. Applicators used above desired vegetation should be adjusted so that the lowest spray stream or wiper contact point is at least 2 inches above the desirable vegetation. Droplets, mist, loam, or splatter of the herbicide solution settling on desirable vegetation may result in discoloration, stunting or destruction.

Applications made above the crops should be made when the weeds are a minimum of 6 inches above the desirable vegetation. Better results may be obtained when more of the weed is exposed to the herbicide solution. Yields not contacted by the herbicide solution will not be affected. This may occur in dense clumps, severe intestations or when the height of the weeds varies so that not all weeds are contacted, in these instances, repeat treatment may be necessary.

SHIELDED APPLICATORS

When applied as directed under conditions described for shielded applicators, this product will control those weeds listed in the "WEEDS CONTROLLED" section of this label.

tise the following equation to convert from a broadcast rate per acre to a band rate per acre.

Band width in inches Row width in inches	X	Herbicide Broadcast RATE per acre	=	Herbicide Band RATE per acre	
Band width <u>in inches</u> Rew width in inches	X	Broadcast VOLUME of solution per acre	=,	Band VOLUME of solution per acre	

Use nozzles that provide uniform coverage within the treated area. Keep shields on shielded sprayers adjusted to protect desirable vegetation. EXTREME CARE MUST BE EXERCISED TO AVOID CONTACT WITH DESIRABLE VEGETATION.

For specific rates of application and instructions for control of various annual and perennial weeds, see the "WEEDS CONTROLLED" section of this label.

WIPER APPLICATORS

Wiper applicators are devices that physically wipe appropriate amounts of this product directly onto the weed.

Equipment must be designed, maintained and operated to prevent the herbicide solution from contacting desirable vegetation. Operate this equipment at ground speeds no greater than 5 mph. Performance may be improved by reducing speed in areas of heavy weed intestations to ensure adequate wiper saturation. Better results may be obtained if 2 applications are made in opposite directions.

Avoid leakage or dripping onto desirable vegetation. Adjust height of applicator to ensure adequate contact with weeds. Keep wiping surfaces clean. Be aware that, on sloping ground, the herbicide solution may migrate, causing dripping on the lower end and drying of the wicks on the upper end of a wiper applicator.

Do not use wiper equipment when weeds are wet.

Mix only the amount of solution to be used during a 1-day period, as reduced activity may result from use of leftover solutions. Clean wiper parts immediately after using this product by thoroughly flushing with

Do not add surfactant to the herbicide solution.

For Rope or Sponge Wick Applicators---Mix 1 gallon of this product in 2 gallons of water to prepare a 33 percent solution. Apply this solution to weeds listed in this "WIPER APPLICATORS" section.

For Porous-Plastic Applicators—Solutions ranging from 33 to 100 percent of this product in water may be used in porous-plastic wiper applicators

When applied as recommended under the conditions described for "WIPER APPLICATORS", this product CONTROLS the following weeds:

Com

Rye, common-

Zea mays Panicum, Texas

Secale cereale

Panicum texanum

Shattercane Sorghum bicolor

ANNUAL BROADLEAVES

Sicklepod -

Starbur, bristly

Cassia obtusilotia

Acanthospermum hispidum

Spanishneedles Bidens bipinnata

When applied as recommended under the conditions described for "WIPER APPLICATORS", this product SUPPRESSES the following weeds:

ANNUAL BROADLEAVES

Desmodium tortuosum

Beggarweed, Florida

Ragweed, giant Ambrosia trilida

Sunflower

Eupatorium capilliflorium

Helianthus annuus

Pigweed, redroot

Thistle, musk

Amaranthus retroflexus

Carduus outaos

Ragweed, common

Velvetleaf

Ambrosia artemisiilolia

Abutilon theophrasti

PERENNIAL GRASSES

Bermudagrass

Smutgrass

Cynodon dactylon

Sporobolus pairetii

Guineagrass
Panicum maximum

Vaseygrass Paspalum urvillei

Johnsongrass Sorghum halepense

PERENNIAL BROADLEAVES

Dogbane, hemp

Nightshade, silverleal

Apocynum cannabinum

Solanum elaeagnifolium

Milkweed Ascelepias syriaca Thistle, Canada Cirsium arvense

WEEDS CONTROLLED

This herbicide controls many annual and perennial grasses and broadleal weeds.

ANNUAL WEEDS

- Apply to actively growing grass and broadleaf weeds.
- Allow at least 3 days after treatment before tillage.
- For maximum agronomic benefit, apply when weeds are 6 inches or less in height.
- To prevent seed production, applications should be made prior to seedhead formation.
- This product does not provide residual control; therefore, delay application until maximum weed emergence. Repeat treatments may be necessary to control later germinating weeds.

LOW-VOLUME BROADCAST APPLICATION (LOW-RATE TECHNOLOGY)

When applied as directed under the conditions described, this product will control the weeds listed below when:

- Water carrier volumes of 3 to 10 gallons per acre for ground applications and 3 to 5 gallons per acre for aerial applications are recommended. (See the "AERIAL APPLICATION" section of this label for approved sites.)
- A nonionic surfactant is added at 0.5 to 1 percent by total spray
 volume. Use 0.5 percent surfactant concentration when using surfactants which contain at least 70 percent active ingredient or a 1
 percent surfactant concentration for those surfactants containing
 less than 70 percent active ingredient.

NOTE

- The addition of 2 percent dry ammonium sulfate by weight or 17 pounds per 100 gallons of water may increase the performance of this product on annual weeds. The improvement in performance may be apparent where environmental stress is a concern. Refer to the "MIXING, ADDITMES and APPLICATION INSTRUCTIONS" section of this label.
- Do not tank-mix with soil residual herbicides when using these rates unless otherwise specified.
- For weeds that have been mowed, grazed or cut, allow regrowth to occur prior to treatment.
- Refer to the "TANK MIXTURES" portion of this section for control of additional broadleaf weeds.

WEED SPECIES	MAXIMUM HEIGHT/LENGTH	RATE PER ACRE* (Fluid Ounces)
Foxta il Setaria spp.	12"	8 oz.
Barnyardgrass Echinochloa crus-galli	6° (0 to 4° (4 to 6°	12 oz. 16 oz.¹) 24 oz.¹)
Biuegrass, annuat Poa annua		
Brome, downy** Bromus tectorum		
Mustard, blue Chorispora tenetia		
Mustard, tansy Descurainia pinnala		
Mustard, tumble Sisymbrium altissimum		:
Mustard, wild Sinapis arvensis		
Spurry, umbrella Holosteum umbellatum		
Barley Hordeum vulgare	12*	
Rye Secale cereale		
Sandbur, field Cenchrus spp		
·		
Shattercane Sorghum bicotor		i i
Stinkgrass Eragrostis cilianensis		
Wheat Triticum aestivum)8"	
Morningglory Ipomoea spp.	2*	16 oz.
Sicklepod Cassia obtusifolia		,
Bluegrass, bulbous Poa bulbosa	6*	
Cheat		

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Bromus secalinus Chickweed, common Stellatia media

Chickweed, mouseear Cerastium vulgatum

Groundsel, common Senecio vulgaris

Lamium amplexicaule Horseweed/Marestail Conyza canadensis

Сола Zea mays Goatgrass, jointed Aegilops cylindrica

Henbit

	MAXIMUM UEIGHT/LENGTH	RATE PER ACRE* (Fluid Dunces)
EED SPECIES	HEIGHT/LENGTH) 5 oz.
ombsquarters, common Cheropodium album	6 °	10 00.
ennycress, field Fanweed Thlaspi arvense		
ocket, London Sisymbrium irio		
tyegrass, Italian Lolium multiflorum	1	
Shepherdspurse Capsella bursa-pastoris	<u> </u>	
Spurge, annual Euphorbia spp.		_{
Buttercup Ranunculus spp.	12"	
Cocklebut Xanthium strumarium	}	
Crabgrass Digitaria spp:		
Dwarddandelion Krigia cespitosa		
Falseflax, smallseed Camelina microcarpa		
Fortail, Carolina Alopecurus carolinianus		}
	ı	1,
	1	
Johnsongrass, seedling Sorghum halepense		
Oats, wild Avena fatua	<u> </u>	
Panicum, fall Panicum dichotomiflorum	,	
Panicum, Texas Panicum texanum	{	
Pigweed, redroot Amaranthus retroflexus		1
Pigweed, smooth Amaranthus hybridus		
Witchgrass Panicum capillare		<u> </u>
Sicklepod Cassia obtusifolia	3 to 4"	24 oz.
Signatgrass, broadteal Brachiaria platyphylla	4"	
Horseweed/Marestail Conyza canadensis	7 to 12*	
Lambsquarters, common Chenopodium album		
Spurge, annual Euphorbia spp.		
Rice, red Oryza sativa	4*	32 oz.
Teaweed Sida spinosa		
	_1	<u> </u>

WEED SPECIES	MAXIMUM HEIGHT/LENGTH	RATE PER ACRE* (Fluid Ounces)
Sprangletop Leptochloa spp.	6.	32 oz.
Geranium, Carolina Geranium carolinianum	12*	
Goosegrass Eleusine indica		
Primrose, cutleaf evening Oenothera laciniate		
Pusley, Florida Richardia scabra	·	
Sicklepod Cassia oblusifolia	5 to 12"	:
Spanishneedles Bidens bipinnata		· .
Filaree Erodium spp.	12*	48 az.
Sprangletop Leptochloa spp.		-

'Use these rates to control barnyardgrass in Alabama, Arkansas, Mississippi, Missouri, Louisiana and Texas for preplant treatments.

- For those rates less than 32 fluid ounces per acre, this product at rates up to 32 fluid ounces per acre may be used where heavy weed densities exist.
- ** For control in no-till systems, use 16 fluid ounces per acre.

TANK MIXTURES

HONCHO® plus BANVEL plus Nonionic Surfactant

HONCHO plus 2,4-D plus nonionic surfactant

DO NOT APPLY BANVEL OR 2,4-D TANK MIXTURES BY AIR IN CALIFORNIA.

These tank mixtures are recommended for use in fallow and reduced tillage areas only. Follow use directions as given in the "LOW-VOLUME BROADCAST APPLICATION" section.

This product plus Banvel or 2,4-D will control the annual grasses and broadleaf weeds listed for this product alone at the indicated heights (except 8 fluid ounces per acre applications), plus the following broadleaf weeds. For those weeds previously listed at 8 fluid ounces of this product alone per acre, use 12 fluid ounces in these tank mixtures.

NOTE: Refer to the specific product labels for crop rotation restrictions and cautionary statements of all products used in tank mixtures. Some crop injury may occur if Banvel is applied within 45 days of planting. The addition of Banvel in a mixture with this product may provide short-term residual control of selected weed species.

Apply 12 to 16 fluid ounces of this product plus 0.25 pound a.i. of Banvel or 0.5 pound a.i. of 2.4-D, plus 0.5 to 1 percent nonionic surfactant by total spray volume per acre to control dense populations of the following annual broadleaf weeds when less than the height indicated:

Cocklebur (12°)

Xanthium strumarium

Kochia* (6°) Kochia scoparia

Lambsquarters (12") Chenopodium album

Lettuce, prickly (6°) Lactuca seriola

Morningglory (6°). lpomoea spp.

Pigweed, redroot (12") Amaranthus retrollexus Pigweed, smooth (12")

Amaranthus hybridus

Thistle, Russian (12") Salsola kali

Marestail/Rorseweed (6") Convza canadensis

*Controlled with Banvel tank mixture only.

Apply 16 fluid ounces of this product plus 0.5 pound a.i. of 2.4-D. plus 0.5 to 1 percent nonionic surfactant by total soray volume per acre to control the following annual broadleaf weeds when less than 6 inches in height.

Ragweed, common Ambrosia artemisiifolia Smartweed, Pennsylvania Polygonum pensylvanicum

Ragweed, giant

Velvelleaf Ambrosia tritida

Abutilon theophrasti

HIGH-VOLUME BROADCAST APPLICATIONS

When applied as directed under the conditions described, this product will control the weeds listed below when water carner volumes are 10 to 40 gallons per acre for ground applications.

Apply 1 to 1.5 quarts of this product per acre plus 0.5 to 1 percent nonionic surfactant by total spray volume. Use 1 quart per acre if weeds are less than 6 inches tall and 1.5 quarts per acre if weeds are over 6 inches tall. If weeds have been mowed, grazed or cut, allow adequate time for new growth to reach recommended stages prior to treatment. These rates will also provide control of weeds listed in the "LOW-VOLUME BROADCAST APPLICATION" section.

WEED SPECIES

Balsamapple*

Momordica charantia

Bassia, fivehook Bassia hyssopiiolia

Влоте Bromus spp.

Fiddleneck Amsinckia spp.

Fleabane, hairy Conyza bonariensis

Fleabane Erigeron spp.

Kochia Kochia scoparia

Lettuce, prickly Lactuca serriola Panicum

Panicum spp.

Ragweed, common Ambrosia artemisiilolia

Ragweed, giant Ambrosia trifida

Smartweed, Pennsylvania Polygonum pensylvanicum

Sowthistle, annual Sanchus cleraceus

Sunflower Helianthus annuus

Thistie, Russian Salsola kali

Velvetleaf Abutilon theophrasti

PERENNIAL WEEDS

Apply this product as follows to control or destroy most perennial weeds:

NDTE: If weeds have been mowed or tilled, do not treat until plants have resumed active growth and have reached the recommended

Repeat beatments may be necessary to control weeds regenerating from underground parts or seed. Repeat treatments must be made prior to crop emergence.

The addition of 1 to 2 percent dry ammonium sulfate by weight or 8.5 to 17 pounds per 100 gallons of water may increase the performance

^{*}Apply with hand-held equipment only.

of this product on perennial weeds. The improvement in performance may be apparent where environmental stress is a concern. Refer to the "MIXING, ADDITIVES and APPLICATION INSTRUCTIONS" section of this label.

When applied as recommended under the conditions described, this product WILL CONTROL the following PERENNIAL WEEDS:

Alfalfa

Medicago sativa

Alligatorweed*

Alternanthera philoxeroides

Anise (fennel)
Foeniculum vulgare

Artichoke, lerusalem Helianthus tuberosus

Bahiagrass Paspalum notatum

Bentgrass
Agrostis Spp.

Bermudagrass Cynodon daciylon

Bermudagrass, water (knotgrass)
Paspalum distichum

Bindweed, field

Convolvulus arvensis Bluegrass, Kentucky

Blueweed, Texas Helianthus ciliaris

Poa spp.

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Brackentern Pteridium aquilinum Bromegrass, smooth
Bromus inermis

Bursage, woollyleal Franseria tomentosa

Canarygrass, reed Phalaris arundinacea

Typha spp. Clover, red Trifolium pratense

Clover, white Trifolium repens

Cogongrass Imperata cylindrica

Dallisgrass
Paspalum dilatatum

Dandelion Taraxacum officinale

Dock, curly
Rumex crispus

Dogbane, hemp Apocynum cannabinum

Fescues Festuca spp.

Fescue, tall Festuca arundinacea

Guineagrass Pancium maximum

Horsenettle

Salanum cardinense Horseradish

Armoracia rusticana

Ice plant
Mesembryanthemum
crystallinum

Johnsongrass

Sorghum halepense

Kikuyugrass Penniselum dandestinum

Knapweed Centaurea repens

Lantana Lantana camara

Lespedeza Lespedeza spp.

Milkweed

Asclepias spp. Muhly, wirestem

Muhlenbergia frondonsa

Mullein, common Verbascum thapsus

Napiergrass Pennisetum purpureum Nightshade, silverleaf Solanum elaeagnifolium

Nutsedge: purple, yellow Cyperus rotundus Cyperus esculentus

Orchardgrass Dactylis glomerata

Pampasgrass Cortaderia spp. Paragrass

Brachiaria mutica Phragmites*

Phragmites spp.

Poison hemlock

Conium maculatum

Quackgrass Agropyron repens

Redvine*

Brunnichia ovata

Reed, giant Arundo donas

Ryegrass, perennial Lolium perenne

Smartweed, swamp Polygonum coccineum

Spurge, leafy* Euphorbia esula

Starthistle, yellow Centaurea solstitalis Sweet potato, wild*

loomoea pandurata

Trumpetcreeper* Campsis radicans

Thistle, Canada Cirsium arvense Vaseygrass Paspalum urvillei

Thistle, artichoke Cynara cardunculus Velvetgrass Holcus spp.

Timothy

Phleum pratense Toroedograss*

Wheatgrass, western Agropyron smithii

Panicum repens

*Partial Control

This product is not registered in California for use on water bermuda-

See "DIRECTIONS FOR USE" and "MIXING, ADDITIVES and APPLICA-TION INSTRUCTIONS" sections of this label for labeled uses and specific application instructions.

Attatta—Apply 1 quart of this product per acre plus 0.5 to 1 percent nonionic surfactant by total soray volume in 3 to 10 gallons of water per acre. Make application after the last hay cutting in the fall. Allow alfalfa to regrow to a height of 6 to 8 inches or more prior to treatment. Applications should be followed with deep tillage at least 7 days after treatment, but before soil freeze-up.

Alligatorweed—Apply 4 quarts of this product per acre or apply a 1.5 percent solution with hand-held equipment to provide partial control. Apply when most of the plants are in bloom. Repeat applications will be required to maintain such control.

Anise (fennel) / Poison hemlock-Apply a 1 to 2 percent solution of this product as a spray-to-wet treatment. Optimum results are obtained when plants are treated at the bud to full-bloom stage of growth. Repeat applications may be needed in succeeding years to control plants arising from seeds.

Bentgrass—For suppression in grass seed production areas. For ground applications only, apply 1.5 quarts of this product plus 0.5 to I percent nonionic surfactant by total spray volume in 10 to 20 gallons of water per acre. Ensure entire crown area has resumed growth prior to a fall application. Bentgrass should be actively growing and have at least 3 inches of growth. Tillage prior to treatment should be avoided. Fillage 7 to 10 days after application is recommended for best results. Failure to use tillage after treatment may result in unacceptable control.

Bermudagrass—For control, apply 5 quarts of this product per acre. For partial control, apply 3 quarts per acre. Treat when bermudagrass is actively growing and seedheads are present. Retreatment may be necessary to maintain control. Allow 7 or more days after application before tillage.

Bermudagrass, water (knotgrass)—Apply 1.5 quarts of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 5 to 10 gallons of water per acre. Apply when water bermudagrass is actively growing and 12 to 18 inches in length. Allow 7 or more days before tilling, flushing or flooding the field.

Fall applications only-Apply 1 quart of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 5 to 10 gallons of water per acre. Fallow fields should be tilled prior to application. Apply prior to trost on water bermudagrass that is actively growing and 12 to 18 inches in length. Allow 7 or more days before tillage.

Bindweed, field—For control, apply 4 to 5 quarts of this product per acre west of the Mississippi River and 3 to 4 quarts east of the Mississippi River, Apply when the weeds are actively growing and are at or beyond full bloom. Do not treat when weed is under drought stress as good soil moisture is necessary for active growth. For best results, apply in late summer or fall. Fall treatments must be applied before a killing frost. Allow 7 or more days after application before

Also for control, apply 2 quarts of this product plus 0.5 pound a.i. of Banvel in 10 to 20 gallons of water per acre. At these rates, apply using ground application only.

The following tank mixtures with 2,4-D may be applied using aerial application equipment (except in California) in fallow and reduced tillage systems only.

For suppression on irrigated agricultural land, apply 1 to 2 quarts of this product plus 1 pound a.i. of 2.4-D in 10 to 20 gallons of water per acre with ground equipment only. Applications should be made following harvest or in fall fallow ground when the bindweed is actively growing and the majority of runners are 12 inches or more in length. The use of at least one irrigation will promote active bindweed growth.

For suppression, apply 16 fluid ounces of this product plus 0.5 pound a.i. of 2,4-D plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre for ground applications and 3 to 5 gallons of water per acre for aerial applications. Applications should be delayed until maximum emergence has occurred and when vines are between 6 to 18 inches in length.

In California only, apply 1 to 5 quarts of this product per acre. Actual rate needed for suppression or control will vary within this range depending on local conditions.

For suppression on irrigated land where annual tillage is performed, apply 1 quart of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. Apply to actively growing bindweed that has reached a length of 12 inches or greater. Allow maximum weed emergence and runner growth. Oo not treat when weeds are under drought stress as good soil moisture is necessary for active growth. Allow 3 or more days after application before tillage.

Bluegrass, Kentucky / Bromegrass, smooth / Orchardgrass— Apply 2 quarts of this product in 10 to 40 gallons of water per acre when the grasses are actively growing and most plants have reached boot-to-early seedhead stage of development. For partial control in

pasture or hay crop renovation, apply 1 to 1.5 quarts of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. Apply to actively growing plants when most have reached 4 to 12 inches in height. Allow 7 or more days after application before tillage.

Orchardgrass (sods going to no-till corn)—Apply 1 to 1.5 quarts of this product per acre plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. Apply to orchardgrass that is a minimum of 12 inches tall for spring applications and 6 inches tall for fall applications. Allow at least 3 days following application before planting. A sequential application of atrazine will be necessary for optimum results.

Blueweed, Texas—Apply 4 to 5 quarts of this product per acre west of the Mississippi River and 3 to 4 quarts per acre east of the Mississippi River. Apply when weed is actively growing and is at or beyond full bloom. Do not treat when weed is under drought stress as good soil moisture is necessary for active growth. New leaf development indicates active growth. For best results, apply in late summer or fall. Fall treatments must be applied before a killing frost. Allow 7 or more days after application before tillage.

Brackenferm—Apply 3 to 4 quarts of this product per acre as a broadcast spray or as a 1 to 1.5 percent solution with hand-held equipment. Apply to fully expanded fronds which are at least 18 inches lone.

Bursage, woollyleaf—For control, apply 2 quarts of this product plus 1 pint of Banvel per acre. For partial control, apply 1 quart of this product plus 1 pint of Banvel per acre. Add 0.5 to 1 percent nonionic surfactant by total spray volume and apply in 3 to 20 gallons of water per acre. Apply when plants are producing new active growth which has been initiated by moisture for at least 2 weeks and when plants are at or beyond flowering.

Canarygrass, reed / Timothy / Wheatgrass, western—Apply 2 to 3 quarts of this product per acre. For best results, apply to actively growing plants when most have reached the boot-to-head stage of growth. Allow 7 or more days after application before tillage.

Cogongrass—Apply 3 to 5 quarts of this product plus 0.5 to 1 percent nonionic surfactant in 10 to 40 gallons of water per acre. Apply when Cogongrass is at least 18 inches tall and actively growing in late symmer or fall. Allow 7 or more days after application before tillage or mowing. Due to uneven stages of growth and the dense nature of vegetation preventing good spray coverage, repeat treatments may be necessary to maintain control.

Dandelion / Dock, curly—Apply 3 to 5 quarts of this product per acre when plants are actively growing and most have reached the early bud stage of growth. Allow 7 or more days after application before tillage.

Also for control, apply 16 fluid ownces of this product glus 0.5 pound a.i. 2.4-D plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre.

Dogbane, hemp—Apply 4 quarts of this product per acre. Apply when actively growing and when most weeds have reached the late bud to flower stage of growth. Following crop harvest or mowing, allow weeds to regrow to a mature stage prior to treatment. For best results, apply in late summer or fall. Allow 7 or more days after application before tillage.

For suppression, apply 16 fluid ounces of this product plus 0.5 pound a.i. of 2.4-D plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre for ground applications and 3 to 5 gallons of water per acre for aerial applications. Delay applications until maximum emergence of dogbane has occurred.

Fescue, tall—Apply 3 quarts of this product in 10 to 40 gallons of water per acre to actively growing plants when most have reached boot-to-early seedhead stage of development.

Fall applications only—Apply 1 quart of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. Apply to fescue in the fall when actively growing and plants have 6 to 12 inches of new growth. Allow 7 or more days after application before tillage. A sequential application of 1 pint per acre of this product plus nonionic surfactant will improve long-term control and control seedlings germinating after fall treatments or the following spring

Guineagrass—Apply 3 quarts of this product per acre or use a 1 percent solution with hand-held equipment. Apply to actively growing guineagrass when most has reached at least the 7-leaf stage of growth. Ensure thorough coverage when using hand-held equipment. Allow 7 or more days after application before tiltage.

Johnsongrass / Ryegrass, perennial—Apply 1 to 3 quarts of this product per acre. In annual cropping systems apply 1 to 2 quarts of this product per acre. Apply 1 quart of this product pius 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. Use 2 quarts of this product when applying 10 to 40 gallons of water per acre. In noncrop, or areas where annual tillage (no-till) is not performed, apply 2 to 3 quarts of this product in 10 to 40 gallons of water per acre. For best results, apply to actively growing plants when most have reached the boot-to-head stage of growth or in the fall prior to frost. Allow 7 or more days after application before tillage. Oo not tank-mix with residual herbicides when using the 1 quart per acre rate.

For burndown of Johnsongrass, apply 1 pint per acre plus 0.5 to 1 percent nonlonic surfactant in 3 to 10 gallons of water per acre before the plants reach a height of 12 inches. For this use, allow at least 3 days after treatment before tillage.

Spot treatment (partial control or suppression)—Apply a 1 percent solution of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume when Johnsongrass is 12 to 18 inches in height. Coverage should be uniform and complete.

Kikuyugrass—Apply 2 to 3 quarts of this product per acre. Spray when most kikuyugrass is at least 8 inches in height (3- or 4-leaf stage of growth) and actively growing. Allow 3 or more days after application before tillage.

Knapweed / Horseradish—Apply 4 quarts of this product per acre. Apply when actively growing and when most weeds have reached the late bud to flower stage of growth. Following crop harvest or mowing, allow weeds to regrow to a mature stage prior to treatment. For best results, apply in late summer or fall. Allow 7 or more days after application before tillage.

Lantana—Apply this product as a 1 to 1.25 percent solution using hand-held equipment only. Apply to actively growing lantana at or beyond the bloom stage of growth. Use the higher application rate for plants that have reached the woody stage of growth. Allow 7 or more days after application before tillage.

Milkweed, common—Apply 3 quarts of this product per acre. Apply when actively growing and most of the milkweed has reached the late bud to flower stage of growth. Following small grain harvest or mowing, allow milkweed to regrow to a mature stage prior to treatment. Allow 7 or more days after application before tillage.

Muhly, wirestem—Apply 1 to 2 quarts of this product per acre. Use 1 quart of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. Use 2 quarts of this product when applying 10 to 40 gallons of water per acre or in pasture, sod, or noncrop areas. Spray when the wirestem muhly is 8 inches or more in height and actively growing. Do not till between harvest and fall applications or in the fall or spring prior to spring applications. Allow 3 or more days after application before tillage. This product will not provide residual control of wirestem muhly from seeds which germinate after application of this product. Do not tank mix with residual herbicides when using the 1 quart per acre rate.

Mightshade, silverleal—For control, apply 2 quarts of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. Applications should be made when at least 60 percent of the plants have berries. Fall treatments must be applied before a killing frost. Allow 7 or more days after application before tillage. Do not treat when weed is under drought stress as good soil moisture is necessary for active growth.

Nutsedge; purple, yellow—Apply 3 quarts of this product per acre as a broadcast spray, or apply a 1 to 2 percent solution from handheld equipment to control existing nutsedge plants and immature nutlets attached to treated plants. Treat when plants are in flower or when new nutlets can be found at rhizome tips. Nutlets which have not germinated will not be controlled and may germinate following treatment. Repeat treatments will be required for long-term control of ungerminated tubers.

Sequential applications of 1 to 2 quarts of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre will provide control. Make applications when a majority of the plants are in the 3- to 5-leaf stage (less than 6 inches tall). Repeat this application, as necessary, when newly emerging plants reach the 3- to 5-leaf stage. Subsequent applications will be necessary for long-term control.

For suppression to partial control of existing plants, apply 1 pint to 2 quarts of this product per acre, plus 0.5 to 1 percent nonionic surfactant in 3 to 40 gallons of water per acre. Treat when plants have 3 to 5 leaves and most are less than 6 inches tall. Repeat treatments will be required to control subsequent emerging plants or regrowth of existing plants. Wait 7 days after treatment before tillage or mowing

Pampasgrass / Ice plant—Apply this product as a 1.5 to 2 percent solution using hand-held equipment. Apply to plants that are actively growing. Pampasgrass should be at or beyond the boot stage of growth. Thorough coverage is necessary for best control.

Phragmites-For partial control of phragmites in Florida and the counties of other states bordering the Gulf of Mexico, apply 5 quarts per acre as a broadcast spray or apply a 2 percent solution from hand-held equipment. In other areas of the U.S., apply 3 quarts per acre as a broadcast spray or apply a 1 percent solution from handheld equipment for partial control. For best results, treat during late summer or fall months or when plants are actively growing and in full bloom. Treatment before or after this stage may lead to reduced control. Due to the dense nature of the vegetation, which may prevent good spray coverage or uneven stages of growth, repeat treatments may be necessary to maintain control. Visual control symptoms will be slow to develop.

Quackgrass-In Annual Cropping Systems, or in Pastures and Sods Followed by Deep Tillage: Apply 1 to 2 quarts of this product per acre. For the 1 quart rate, apply 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gailons of water per acre. For the 2 quart rate, apply in 10 to 40 gallons of water per acre. Do not tank mix with residual herbicides when using the 1 quart rate. Spray when quackgrass is 6 to 8 inches in height and actively growing. Do not till between harvest and fall applications or in fall or spring prior to spring application. Allow 3 or more days after application before tillage. In pastures or sods, for best results use a moldboard plow.

Quackgrass-Pasture or Sod or Other Noncrop Areas Where Deep Tillage is Not Planned Following Application: Apply 2 to 3 quarts in 10 to 40 gallons of water per acre. Spray when the quackgrass is greater than 8 inches tall and actively growing. Do not till between harvest and fall application or in fall or spring prior to spring application. Allow 3 or more days after application before tillage.

Redvine -- For suppression, apply 24 fluid ounces of this product per acre at each of two applications 7 to 14 days apart or a single application of 2 quarts per acre. Apply recommended rates in 5 to 10 gallons of water per acre plus 0.5 to 1 percent nonionic surfactant by total volume. Apply in late September or early October to actively total volume, apply in late application of the land have been grow-ing a source the last unage operation. Make applications at least 1 week hefore a billing first

least 1 week before a killing frost.

Reed, giant—For control of giant reed, apply a 2 percent solution of this product when plants are actively growing. Best results are obtained when applications are made in late summer to fall.

Smartweed, swamp—Apply 3 to 5 quarts of this product per acrewhen plants are actively growing and most have reached the early bud stage of growth. Allow 7 or more days after application before

Also for control, apply 16 fluid ounces of this product plus 0.5 pound active ingredient of 2,4-0 plus 0.5 to 1 percent nonionic surfactant by total volume in 3 to 10 gallons of water per acre in the late summer or fall. Apply when plants are actively growing and most have reached the early bud stage of growth. Allow 7 or more days after application

Spurge, leasy—For suppression, apply 16 fluid ounces of this product plus 0.5 pound active ingredient 2,4-D plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre in the late summer or fall. Apply when plants are actively growing if mowing has occurred prior to treatment, apply when most of the plants are 12 inches tall. Allow 7 or more days after application

Starthistle, yellow—Best results are obtained when applications are made during periods of active growth, including the rosette, botting and early flower stages. For spray-to-wet applications, apply this product as a 2 percent solution. For broadcast applications, apply 2 quarts per acre in 10 to 40 gallons per acre of water carrier.

Sweet Potato, wild / Thistle, artichoke—Apply this product as a 2 percent solution using hand-held equipment. Apply to actively growing weeds that are at or beyond the bloom stage of growth. Repeat applications may be required. Allow the plant to reach the recommended stage of growth before retreatment. Allow 7 or more days before

Thistle, Canada—Apply 2 to 3 quarts of this product per acre. Apply to actively growing thistles when most are at or beyond the bud stage of growth. After harvest, mowing or tillage in the late summer or fall, allow at least 4 weeks for initiation of active growth and rosette development prior to the application of this product. Fall treatments must be applied before a killing frost. Allow 3 or more days after application before tillage.

For suppression of Canada thistle, apply 1 quart per acre of this product, or 1 pint of this product plus 0.5 pound a.i. 2,4-D per acre. plus 0.5 to 1 percent nonionic surfactant by tolat spray volume in 3 to 10 gallons of water per acre in the late summer or fall after harvest, mowing or tiflage. Allow rosette regrowth to a minimum of 6 inches in diameter before treating. Applications can be made as long as leaves are still green and plants are actively growing at the time of application. Allow 3 or more days after application before tillage.

Torpedograss-Apply 4 to 5 quarts of this product per acre to provide partial control of torpedograss. Apply to actively growing torpedograss when most plants are at or beyond the seedhead stage of growth. Repeat applications will be required to maintain control. Fall treatments must be applied before frost. Allow 7 or more days after application before tillage.

Trumpetcreeper-For control, apply 2 quarts of this product per acre in 5 to 10 gallons of water per acre. Apply to actively growing plants in late September or October, which are at least 18 inches tall and have been growing 45 to 60 days since the last tillage operation. Make applications at least 1 week before a killing frost.

Other perennials listed on this label - Apply 3 to 5 quarts of this product per acre. Apply when actively growing and most have reached early head or early bud stage of growth. Allow 7 or more days after application before tillage.

-HOUDT BRUSH AND TREES

When applied as recommended under the conditions described, this product CONTROLS or PARTIALLY CONTROLS the following woody

Alder

Alnus spp.

Fracinus soo.

Aspen, quaking Populus tremuloides

Bearmat (Bearclover) Chamaebatia foliolosa

Beech

Fagus grandilolia

Birch

Betula spp. Blackberry

Rubus spp.

Blackgum Myssa spp.

Bracken Pendium spp.

Broom: French

Cytisus monspessulanus Scotch

Cytisus scopanus Buckwheat California* Eriogonum fasciculatum Cascara*

Rhamnus purshiana

Catsclaw* Acacia greggi Сеапоцииз* Ceanothus spp.

Chamise

Adenostoma fasciculatum

Cherry: Bitter Prunus emarginata

Black Prunus serotina

Pin

Prunus pensylvanica

Coyota brush Baccharis consanguinea

Creeper, Virginia* Parthenocissus quinquefolia

Dewberry Rubus trivialis Dogwood+

Cornus spp. Eiderberry

Sambucus spp.

Elm* Maple: Red** Ulmus spp. Eucalyptus Acer rubrum Eucalyptus spp. Sugar Gorse Acer saccharum Ulex europaeus Vine* Hasardia* Acer circinatum Haplopappus squamosus Mankey Flower* Hawthorn Mimulus guttatus Crataegus spp. Dak: Hazel Black* Corylus spp. Quercus velutina Northern Pin Hickory* Carya spo. Quercus palustris Holly, Florida/ Post Brazilian Peppertree* Quercus stellata Schinus terebinthifolius Red Honeysuckle Quercus rubra Lonicera spp. Southern Red Hornbeam, American* Quercus falcata Carpinus caroliniana White* Kudzu Quercus alba Pueraria tobata Persimmon* Locust, black* Diospyros spp. Robinia pseudoacacia Pine Madrone Pinus spp. Arbutus menziesii Poison Ivy Manzanita Rhus radicans Arctostaphylos spp. Poison Oak Rhus toxicodendron Liriodendron tulipitera Raspberry Poison* Rubus spp. Rhus vernix

Redbud, eastern Smooth* Cercis canadensis Rhus glabra Rose, multiflora Winged* Rosa multiflora Rhus copallina Russian-olive Sweetgum Liquidambar styraciflua Elaeagnus angustifolia Sage: black, white Swordfern* Salvia spp. Polystichum munitum Sagebrush, California Tallowtree, Chinese Artemisia calitornica Sapium sebilerum Tan Oak Salmonberry Rubus speciabilis Lithocarpus densiflorus Thimbleberry Satt cedar lamanis spp. Rubus parviflorus Tobacco, tree* Sassafras Sassafras aibidum Nicotiana glauca Sourwood Trumpetcreeper

Orydendrum arboreum

Waxmynle, southern*

Myrica cerifera

Willow

Salix spp.

*Partial control

**See below for control or partial control instructions.

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NOTE: If brush has been mowed or tilled or trees have been cut, do not treat until regrowth has reached the recommended stages of

Apply this groduct when plants are actively growing and, unless otherwise directed, after full leaf expansion. Use the higher rate for larger plants and/or dense areas of growth. On vines, use the higher rate for plants that have reached the woody stage of growth. Best results are obtained when application is made in late summer or fall after fruit formation.

In arid areas, best results are obtained when application is made in the spring to early summer when brush species are at high moisture content and are flowering.

Ensure thorough coverage when using hand-held equipment. Symptoms may not appear prior to frost or senescence with fall treatments.

Allow 1 or more days after application before tillage, mowing or removal. Repeal treatments may be necessary to control plants regenerating from underground parts or seed. Some autumn colors on undestrable deciduous species are acceptable provided no major leaf drop has occurred. Reduced performance may result if fall treatments are made following a frost.

See "DIRECTIONS FOR USE" and "MIXING, ADDITIVES and APPLICA-TION INSTRUCTIONS" sections of this label for labeled uses and specific application instructions.

Apply this product as follows to control or partially control the following woody brush and trees.

Alder / Dewberry / Honeysuckle / Post Oak / Raspberry---For control, apply 3 to 4 quarts per acre of this product as a broadcast spray or as a 1 to 1.5 percent solution with hand-held equipment.

Aspen, quaking / Cherry: bitter, black, pin / Hawthorn / Oak, southern red / Sweetgum / Trumpetcreeper—For control, apply 2 to 3 quarts of this product per acre as a broadcast spray or as a 1 to 1.5 percent solution with hand-held equipment.

Birch / Elderberry / Hazel / Salmonberry / Thimbleberry—For control, apply 2 quarts per acre of this product as a broadcast spray or as a 1 percent solution with hand-held equipment.

Blackberry—For control, apply 3 to 4 quarts per acre of this product as a broadcast spray, or I to 1.5 percent solution with hand-held equipment. Make application after plants have reached full leaf maturity. Best results are obtained when applications are made in late Summer or fall. After berries have set or dropped in late fall, blackberry can be controlled by applying a 3/4 percent solution of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume with hand-held equipment. For control of blackberries after leaf drop and until killing frost or as long as steins are green, apply 3 to 4 quarts of this product in 10 to 40 gallons of water per acre.

Broom: French. Scotch—For control, apply a 1.5 to 2 percent solution with hand-held equipment.

Buckwheat, California / Hasardia / Monkey Flower / Tobacco, tree—For partial control of these species, apply a 1 to 2 percent solution of this product as a foliar spray with hand-held equipment Thorough coverage of foliage is necessary for best results.

Catsclaw—For partial control, apply as a 1 to 1.5 percent solution

Coyote Brush—For control, apply a 1.5 to 2 percent solution with hand-held equipment when at least 50 percent of the new leaves are

Eucalyptus—For control of eucalyptus resprouts, apply a 2 percent Solution of this product with hand-held equipment when resprouts are 6 to 12 feet tall. Ensure complete coverage. Apply when plants are growing actively. Avoid application to drought-stressed plants.

Kudzu—For control, apply 4 quarts of this product per acre as a broadcast spray or as a 2 percent solution with hand-held equipment. Repeat applications will be required to maintain control.

Madrone resprouts—For suppression or partial control, apply a 2 percent solution of this product to resprouts less than 3 to 6 feet tall. Best results are obtained with spring/early summer treatments.

Maple, red—For control, apply as a 1 to 1.5 percent solution with hand-held equipment when at least 50 percent of the new leaves are fully developed. For partial control, apply 2 to 4 quarts of this product per acre as a broadcast spray.

Maple, sugar / Oak, northern pin / Oak, red—for control, apply as a 1 to 1.5 percent solution with hand-held equipment when at least 50 percent of the new leaves are fully developed.

Poison by / Poison Oak—For control, apply 4 to 5 quarts of this product per acre as a broadcast spray or as a 2 percent solution with hand-held equipment. Repeat applications may be required to maintain control. Fall treatments must be applied before leaves tose green color.

Rose, multiflora—For control, apply 2 quarts of this product per acre as a broadcast spray or as a 1 percent solution with hand-held equipment. Ireatments should be made prior to leaf deterioration by leaf-feeding insects.

Sage, black / Sagebrush, California / Chamise / Tallowtree, Chinese—For control of these species, apply a 1 percent solution of this product as a loliar spray with hand-held equipment. Thorough coverage of foliage is necessary for best results.

Tan oak resprouts—for suppression or partial control, apply a 2 percent solution of this product to resprouts less than 3 to 6 feet taff. Best results are obtained with tall applications.

Willow—For control, apply 3 quarts of this product per acre as a broadcast spray or as a 1 percent solution with hand-held equipment.

Other Woody Brush and Trees listed on this label—For partial control, apply 2 to 5 quarts of this product per acre as a broadcast spray or as a 1 to 2 percent solution with hand-held equipment.

NONCROP USES

See "GENERAL INFORMATION" and "MOUNG, ADDITIVES and APPLI-CATION INSTRUCTIONS" sections of this label for essential product performance information and the following "NONCROP" sections for specific recommended uses.

EXTREME CARE MUST BE EXERCISED TO AVOID CONTACT OF SPRAY WITH FOLIAGE, GREEN STEMS, EXPOSED NON-WOODY ROOTS OR FRUIT OF CROPS, DESIRABLE FURFGRASSES, TREES, SHRUBS OR OTHER DESIRABLE VEGETATION SINCE SEVERE DAMAGE OR DESTRUCTION MAY RESULT.

Repeat treatments may be necessary to control weeds regenerating from underground parts or seeds.

Where repeat applications are necessary, do not exceed 10.6 quarts of this product per acre per year.

This product does not provide residual weed control. For subsequent weed control, follow a label-approved herbicide program.

Read and carefully observe the cautionary statements and all other information appearing on the labels of all herbicides used.

INDUSTRIAL, RECREATIONAL AND PUBLIC AREAS

When applied as directed for "NONCROP USES," under conditions described, this product controls annual and perennial weeds listed on this label growing in areas such as airports, ditch banks, dry ditches, dry canals, fencerows, golf courses, highways, industrial plant sites, lumber yards, parking areas, parks, petroleum tank farms and pumping installations, pipelines, power and telephone rights-of-way, railroads, roadsides, schools, storage areas, utility substations, other public areas and similar industrial or noncrop areas.

Line Bright States

For specific rates of application and instructions for control of various annual and perennial weeds and woody brush and trees, see the "WEEOS CONTROLLED" section of this label.

This product may be applied with recirculating sprayers, shielded applicators, or wiper applicators in any noncrop site specified on this label. See the Selective Equipment part of "APPLICATION EQUIPMENT and TECHNIQUES" section of this label for information on proper use and calibration of this equipment.

TANK MIXTURES FOR INDUSTRIAL SITES AND **FORESTRY SITE PREPARATIONS**

HONCHO® plus OUST™

Use on industrial sites including airports, industrial plants, lumberyards, petroleum tank farms, pumping stations, railroads, roadsides, storage areas or other similar sites where bare ground is desired.

This tank mixture may also be used as a site preparation treatment for sites to be planted to jack pine, loblolly pine, red pine, slash pine and Virginia pine. When applied as directed for "NONCROP USES" under the conditions described, this product plus Oust provides control of annual weeds listed in the "WEEDS CONTROLLED" section of the label for this product and Qust, and control or partial control of the perennial weeds listed below.

Apply 1 to 2 quarts of this product with 2 to 4 ounces of Oust in 10 to 40 gallons of spray solution per acre as a broadcast spray to actively

This mixture may be applied by aerial equipment in site prep operations. When applied by air, use the recommended rates in 5 to 15 gallons of spray solution per acre.

This product plus Oust tank mixtures may not be applied by air in California.

For control of annual weeds, use the lower rates of these products. For control of the listed perennial weeds, use the higher rates of both products. For partial control, use the lower rates.

Bahiagrass

Paspalum notatum

Bermudagrass*

Cynodon dactyton

Broomsedge

Andropogon virginicus

Dock curty Rumex crispus

Doglenget Eupatorium capilliforium

Fescue, tall

Festuca arundinacea

Johnsongrass** Sorghum halepense

Poorjoe**

Diodia teres

Quackerass Авгорутоп герепь

Inumpetcreener*

Campsis radicans

Vaseygrass

Paspalum urvillei

Yarvain, blue

Verbena hastata

*Suppression at the higher rates only.

**Control at the lower rates.

Read and carefully observe the cautionary statements and all other information appearing on the labels of all herbicides used

TANK MIXTURES **HONCROP SITES**

When applied as a tank mixture, this product provides control of the emerged annual weeds and partial control of the emerged perennial weeds listed in this labe! When applied as a tank mixture, the following residual herbicides will provide preemergence control of the weeds listed in the individual product labels.

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	HONCHO® plus DIURON	
	HONCHO plus KROVARIM I	
	HONCHO plus KROVAR II	
	HONCHO plus RONSTAR™ 50WP	
•	HONCHO plus SIMAZINE, PRINCEP CALIBER™ 90	•
	HONCHO plus SIMAZINE 4L	
	HONCHO plus SIMAZINE 80W	
	HONCHO plus SURFLAN™ 75₩	

When tank mixing with residual herbicides, add an agriculturally approved nonionic surfactant at 0.5 to 1 percent by volume of spray solution. See the "MIXING, ADDITIVES and APPLICATION INSTRUC-TIONS" section of this label before preparing these tank mixtures.

HONCHO plus SURFLAN AS

Read and carefully observe the label claims, cautionary statements, recommended use rates and all other information on the labels of all products used in these tank mixtures. Use according to the most restrictive label directions for each product in the mixture.

CONTROL OF EMERGED WEEDS

NOTE: For backpack sprayer and handgun applications, see the "HAND-HELD AND HIGH VOLUME EQUIPMENT" section for recommended rates.

Annual Weeds—Apply 1 quart per acre of this product in these tank mixtures when weeds are less than 6 inches tall and 1.5 quarts per acre when weeds are more than 6 inches tall.

Perennial Weeds—For partial control of perennial weeds using these tank mixtures, apply 2 to 5 quarts per acre of this product. Follow the recommendations in the "WEEDS CONTROLLEO" section of this label for stage of growth and rate of application for specific

PREEMERGENCE WEED CONTROL

For preemergence weed control, refer to the individual product labels for specific noncrop sites, rates, carrier volumes and precautionary

Mix only the quantity of spray solution which can be used during the same day. Do not allow these tank mixtures to stand overnight as this may result in reduced weed control.

FARMSTEAD WEED CONTROL

When applied as directed for "NONCROP USES", under conditions described, this product controls undesirable vegelation listed on this label around farmstead building foundations, along and in fences, shelterbells and for general nonselective farmstead weed control.

For specific rates of application and instructions for control of various annual and perennial weeds, see the "WEEDS CONTROLLED" section

FARM DITCHES

This product will suppress perennial grasses along farm ditches. Apply this product at a rate of 6 to 8 fluid ounces per acre. Use 8 fluid ounces per acre when treating tall (coarse) fescue, fine fescue, orchardgrass or quackgrass covers. For best suppression of these species, add ammonium sulfate at a rate of 1.7 pounds per 10 gallons of spray solution. Use 6 fluid ounces per acre without ammonium sulfate when treating Kentucky bluegrass.

Apply treatments in 10 to 20 gallons of spray solution per acre to actively growing perennial grass covers. For best spray distribution and coverage, use flat fan nozzles.

Add a nonionic surfactant at a rate of 0.5 percent of the spray solution

Where broadleaf weed control or suppression is desired, lank mix this product with an appropriate, labeled broadleaf weed herbicide.

CONSERVATION RESERVE PROGRAM (CRP ACRES)

This product can be used to control undesirable vegetation, when rotating out of CRP acres or to suppress competitive growth and seed production of undesirable vegetation in CRP acres.

For specific rates of application for various annual and perennial weeds, see the "WEEDS CONTROLLED" section of this label.

CRP applications may be made with wiper applicators or conventional spray equipment.

For selective applications with broadcast spray equipment, apply 12 to 16 ounces per acre of this product in early spring before desirable CRP grasses, such as crested and tall wheatgrass, break dormancy and initiate green growth. Late fall applications can be made after desirable perennial grasses have reached dormancy. Some stunting of CRP perennial grasses will occur if applications are made when plants are not dormant.

HABITAT MANAGEMENT

This product is recommended for the restoration and/or maintenance of native habitats and in wildlife management areas. Apply as recommended in the "NONCROP USES" section of this label.

Habitat Restoration and Maintenance—When applied as directed, exotic and other undesirable vegetation may be controlled in habitat management areas. Applications can be made to allow recovery of native plant species, prior to planting desirable native species, and for similar broadspectrum vegetation control requirements in habitat

management areas. Spot treatments can be made to selectively remove unwanted plants for habital maintenance and enhancement. For spot treatments, care should be exercised to keep spray off of desirable plants.

Wildlife Food Plots—This product may be used as a site preparation treatment prior to planting wildlife food plots. Any wildlife food species may be planted after applying this product, or native species may be allowed to repopulate the area. If tillage is needed to prepare a seedbed, wait 7 days after applying this product before tilling.

ORNAMENTALS, TREE NURSERIES AND CHRISTMAS TREES

THIS PRODUCT IS NOT RECOMMENDED FOR USE AS AN OVER-THE-TOP BROADCAST SPRAY IN DRNAMENTALS AND CHRISTMAS TREES.

NOTE: Desirable plants may be protected from the spray solution by using shields or coverings made of cardboard or other impermeable material.

When applied as instructed for the conditions described for "NON-CROP USES", this product controls undesirable vegetation listed on this label prior to planting, within and around greenhouses and shadehouses, and as a postdirected spray around established ornamentals and Christmas trees.

for specific rates of application and instructions for control of various annual and perennial weeds, see the "WEEDS CONTROLLED" section of this label.

Where repeat applications are necessary, do not exceed 10.6 quarts of this product per acre per year.

Site Preparation—Following preplant applications of this product, any ornamental, nursery species or Christmas tree species may be planted. Precautions should be taken to protect nontarget plants during site preparation applications.

Greenhouse / Shadehouse Use—This product may be used to control weeds listed on this label which are growing in greenhouses. Desirable vegetation must not be present during application and air circulation fans must be turned off.

Postdirected Spray—Use as a postdirected spray around established woody praemental species, nursery species or Christmas trees such as those listed below. Care must be exercised to avoid contact of spray, drift or mist with foliage of or green bark of established ornamental species.

Arborvitae

Thuja spp.

Azalea Rhododendron spp.

Baxwood

Baxus spp.

Crabappte Malus spp.

Euonymus Euonymus spp.

Fir Abies spp. Pseudotsuga spp.

Jojoba Simmondsia chinensis

Hollies
Ilex spp.

Lilac

Syringa spp.

Magnolia Magnolia spp.

Maple Acer soo.

Oak .

Quercus spp.

Privet

Ligustium spp.

Pine Pinus spp.

Pinus spp. Spruce

Picea spp.

Yew Taxus spp.

SILVICULTURAL SITES and RIGHTS-OF-WAY

NOTE: NOT RECOMMENDED FOR USE AS AN OVER-THE-TOP BROAD-CAST SPRAY IN SILVICULTURAL NURSERIES.

When applied as directed for "NONCROP USES" under conditions described, this product controls undesirable vegetation listed on this label. This product also suppresses or controls undesirable vegetation listed on this label when applied at recommended rates for release of established coniferous species listed on this label.

For specific rates of application and instructions for control of various brush, annual and perennial weeds, see the "WEEDS CONTROLLED" section of this label. For specific rates of application for release of listed coniferous species, see the "CONIFER RELEASE" part of this section of the label.

Where repeat applications are necessary, do not exceed $10.6\ \text{quarts}$ of this product per acre per year.

Aerial Application—This product may be applied using aerial spray equipment for silvicultural site preparation, conifer release and rights-of-way treatments. See the "APPLICATION EQUIPMENT and TECHNIQUES" part of the "MIXING, ADDITIVES and APPLICATION INSTRUCTIONS" section of this label for information on have to apply this product by air.

DO NOT APPLY THIS PRODUCT BY AIR TO RIGHTS-OF-WAY SITES IN THE STATE OF CALIFORNIA.

To reduce the aerial application drift hazard to aquatic sites*, to nontarget sites or any site containing desirable vegetation, always maintain appropriate buffer zones. A buffer zone of the following minimum distances should be maintained:

 Helicopters using a MicrofoilTM boom, a Thru-ValveTM boom (TVB-45), or equivalent drift control systems, should maintain at least a SO-foot buffer zone.

- · When using other aerial equipment:
- 1. Maintain at least a 75-foot buffer zone for applications using 2 quarts or less per acre of this product.
- 2. Maintain at least a 125-foot buffer zone for applications using more than 2 quarts per acre of this product.
- 3. Maintain at least a 400-toot buffer zone for applications on rights-of-way when applied from 75 feet or more above ground

These distances should be increased if conditions favoring drift exist.

*Aquatic sites include all lakes, pends and streams used for significant domestic purposes or angling.

SITE PREPARATION

Following preplant applications of this product, any silvicultural species may be planted.

POSTDIRECTED SPRAY

In established silvicultural sites, use as a spray on the foliage of undestrable vegetation. Care must be exercised to avoid contact of spray, drift or mist with foliage or green bank of desirable species.

CONFER RELEASE

For release, apply only where confers have been established for more than one year. Vagetation should not be disturbed prior to treatment or until visual symptoms appear after treatment. Symptoms of treatment are slow to appear, especially in woody species treated in late fall. Injury may occur to conifers treated for release, especially where spray patterns overlap or the higher rates are applied or when applications are made during periods of active conifer growth. Do not use additional surfactant with coniter release applications.

Applications must be made after formation of final confer resting buds in the fall or prior to initial bud swelling in spring. Some autumn colors on undestrable deciduous species are acceptable provided no

major leaf drop has occurred. Use the following rates for conffer release to control or partially control the weeds listed in the "WEEDS CONTROLLED" section of this label.

For release of the following conifer species:

Douglas fir

Pines*

Pseudotsuga menziesii

Pinus spp.

Spruce Picea spp.

Abies soo

Remlack

*Includes all species except eastern white pine, loblolly pine or slash

Apply 1.5 to 2 quarts of this product per acre except in Washington and Oregon, west of the crest of the Cascade Mountains. For spring treatments west of the crest of the Cascade Mountains, apply 1 quart of this product per acre before conifer bud swell for control of annual weeds. For fall treatments in Washington and Oregon, west of the crest of the Cascade Mountains, apply 1 to 1.5 quarts of this product

per acre before any major leaf drop of deciduous species. For release of western hemlock, apply 1 quart of this product per

For release of the following conifer species:

Loblolly pine

Slash pine

Pinus taeda

Eastern white pine Pinus strobus

Late Season Application-Apply 1.5 to 2 quarts of this product in a minimum of 5 gallons of spray solution per acre during early autumn. Applications made prior to September 1 or when conditions are conducive to rapid growth of conifers will create the potential for increased injury in the form of tip and/or needle burn. Injury may

decrease with later applications. Some autumn colors are acceptable at time of application. Apply prior to frost or leaf drop of undesirable plants. Applications made according to label directions will release loblolly pine, eastern white pine and stash pine by reducing competition from the following species:

Ash

Frazinus spp.

Quercus alba

Cherry:

Persimmon Diospyros spp.

White

Black Prunus serotina

Poplar, yellow

Linodendron tuliplera

Prunus pensylvanica

Sassafras

Ulmus spp.

Sassafras albidum

Hawthorn

Sourwood

Crataegus spp.

Oxydendrum arboreum

Locust, black Robina pseudoacacia Sumaç: Poison

Maple, red

Rhus vernix

Acer rubra

Smooth Rhus glabra

Oak:

Winged

Black

Rhus copallina

Quercus velutina

Sweetgum

Quercus stellata

Liquidambar styraciflua

Southern Red

Quercus falcata

Apply only to those sites where woody brush and trees listed in this label constitute the majority of the undesirable species.

HONCHO® plus oust tank mixtures FOR CONIFER RELEASE FROM HERBACEOUS WEEDS

To release lobioily pines from herbaceous weeds, tank mixtures of this product with Oust will provide control of annual weeds listed in the "WEEDS CONTROLLED" section of this and the Oust label, and partial control of the perennial weeds listed below.

Apply 16 to 24 fluid ounces of this product with 2 to 4 ounces of Oust in 10 to 30 gallons of spray solution per acre. Make application to actively growing weeds as a broadcast spray over the top of the young lobially pines.

This product plus Oust lank mixtures may not be applied by air in California,

This tank mixture may be applied using aerial equipment. When applying by air, use the recommended rate in 5 to 15 gallons of spray solution per acre.

For control of annual weeds below 12 inches in height (or runner length on annual vines), use the lower rates of both products. Use the higher rates of both products when annual weeds are in more advanced stages of growth and approaching flower or seed formation.

Use the higher rates of both products for partial control of the following perennial weeds. Use the lower rates for suppression of growth.

Bahiagrass

*essignosariol

Paspalum notatum

Sorghum halepense Роолјов*

Broomsedge Andropogon virginicus

Diodia teres

Dock, curty

Trumpetcreeper**

Rumex crispus

Campsis radicans

Dogtennel

Vaseygrass Paspalum urvillei

Eupatorium capillitorium

Fescue, tall

Vervain, blue

Festuca arundinacea

Verbena hastata

- *Control at the higher rates.
- **Suppression at the higher rates only.

Pine damage may occur or can be accentuated if treatment takes place when young trees are under stress from drought, flood water,

Read and observe the cautionary statements and all other information appearing on the labels of all herbicides used.

NOTE TO USER

This product must not be used in areas where adverse impact on federally designated endangered/threatened plant or aquatic species

Prior to making applications, the user of this product must determine that no such species are located in or immediately adjacent to the area to be treated.

CUT STUMP TREATMENTS

Woody vegetation may be controlled by treating freshly cut stumps of trees and resprouts with this product. Apply this product using suitable equipment to ensure coverage of the entire cambium. Cut vegetation close to the soil surface. Apply a 50 to 100 percent solution of this product to the freshly-cut surface immediately after cutting. Delays in application may result in reduced performance. For best results, applications should be made during periods of active growth and full leaf expansion.

When used according to directions for cut stump application, this product will CONTROL, PARTIALLY CONTROL or SUPPRESS many types of woody brush and tree species, some of which are listed below:

Alder

Madrone Arbutus menziesii

Alnus spp. Eucalyptus

Oak

Eucalyptus spp.

Quercus spp.

Reed, giant

Tan Oak

Arundo donax

Lithocarpus densiflorus

Saltcedar

Willow

Tamarisk spp.

Salix soo.

Sweetgum

Liquidambar styraciflua

INJECTION AND FRILL APPLICATIONS

Woody vegetation may be controlled by injection or frill application of this product. Apply this product using suitable equipment which must penetrate into the living tissue. Apply the equivalent of 1 ml of this product per each 2 to 3 inches of trunk diameter (OBH). This is best achieved by applying a 50 to 100 percent concentration of this material either to a continuous trill around the tree or as cuts evenly spaced around the tree below all branches. As tree diameter increases in size, better results are achieved by applying diluted material to a continuous frill or more closely spaced cultings. Avoid application techniques that allow runoff to occur from frill or cut areas in species that exude sap freely after frills or culting. In species such as this, make frill or cut at an oblique angle so as to produce a cupping effect and use undiluted material. For best results, application should be made during periods of active growth and after full leaf expansion.

This treatment WILL CONTROL the following woody species:

0ak

Sweetgum

Quercus son.

Liquidambar styracillua

Poplar

Sycamore

Populus spp.

Platanus occidentalis

This treatment WILL SUPPRESS the following woody species:

Błack gum

Hickory

Nyssa sylvatica

Carya spp.

Dogwood

Maple, red

Cornus spp.

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TURFGRASSES AND GRASSES FOR SEED PRODUCTION

PREPLANT AND RENOVATION

When applied as directed for "NONCROP USES", under conditions described, this product controls most existing vegetation prior to the planting or renovation of either turfgrasses or grass seed production areas.

For specific rates of application and instructions for control of various annual and perennial weeds, and woody brush and trees, see the "WEEDS CONTROLLED" section of this label.

For maximum control of existing vegetation, delay planting to determine if any regrowth from escaped underground plant parts occurs. Where repeat treatments are necessary, sufficient regrowth must be attained prior to application. For warm-season grasses, such as bermudagrass, summer or fall applications provide best control.

DO NOT DISTURB SOIL OR UNDERGROUND PLANT PARTS BEFORE TREATMENT. Tillage or renovation techniques such as vertical mowing, coring or slicing should be delayed for 7 days after application to allow proper translocation into underground plant parts.

TURFGRASSES

Where existing vegetation is growing in a field or unmowed situation, apply this product to actively growing weeds at the stages of growth listed in the "WEEDS CONTROLLED" section of this label.

Where existing vegetation is growing under mowed turfgrass management, apply this product after omitting at least one regular mowing to allow sufficient growth for good interception of the spray.

Desirable turfgrasses may be planted following the above procedures.

GRASSES FOR SEED PRODUCTION .

Apply this product to actively growing weeds at the stages of growth recommended in the "WEEDS CONTROLLEO" section of this label

prior to planting or renovation of turf or forage grass areas grown for seed production.

DO NOT feed or graze treated areas within 8 weeks after application.

ANNUAL WEED CONTROL IN DORMANT BERMUDAGRASS AND BAHIAGRASS TURF

When applied as directed for "NONCROP USES" under the conditions described, this product will provide control or suppression of many winter annual weeds and tall fescue for effective release of dormant bermudagrass and bahiagrass turf. Refer to the rate table for Honcho alone under the "RELEASE OF BERMUDAGRASS and BAHIAGRASS" section of this label for recommended rates and volumes on the species to be suppressed or controlled. Treat only when turf is dormant and prior to spring greenup. Spot treatments or broadcast applications of this product in excess of 16 fluid ounces per acre may result in injury or delayed greenup in highly maintained turfgrass areas; i.e., golf courses, lawns, etc. DO NOT APPLY TANK MDTURES of this product plus Oust in highly maintained turfgrass areas.

RELEASE OF BERMUDAGRASS OR BAHIAGRASS

NDTE: Use only in areas where bermudagrass or bahiagrass are desirable ground covers and where some temporary injury or discoloration can be tolerated. Use tank mixtures of this product plus Oust only on railroads, highways, utility plant sites, or other right-of-way areas.

When applied as directed for "NONCROP USES" under the conditions described, this product will provide control or suppression of many winter annual weeds and tall fescue for effective release of dormant bermudagrass or bahiagrass. This product may be tank-mixed with Oust as recommended for residual control. Make applications to dormant bermudagrass or bahiagrass. Tank mixtures of this preduct plus

Oust may delay greenup. To avoid delays in greenup and minimize injury, do not add more than 1 ounce per acre of Oust on bermudagrass or more than 0.5 ounce per acre on bahiagrass, or treat when these grasses are in a semi-dormant condition.

For best results on winter annuals, treat when plants are in an early growth stage (below δ inches in height) after most have germinated. For best results on tall fescue, treat when fescue is in or beyond the 4- to δ -leaf stage.

WEEDS CONTROLLED

Rate recommendations for control or suppression of winter annuals and tall fescue are listed below:

Apply the recommended rates of this product alone or as a tank mixture in 10 to 25 gallons of water, plus 0.5 to 1 percent nonionic surfactant by total spray volume per acre. $^{\circ}$

For the best recommendation for the mixture of weeds within your geographic area, contact your Monsanto sales representative.

WEEDS CONTROLLED OR SUPPRESSED WITH HONCHO® ALONE*

NOTE: C = ControlS = Suppression

1

	- Honcho® FLUID OZ/ACRE						
WEED SPECIES	8	12	2 16	24	32	2 64	
Barley, little Hordeum pusilium	S	c	С	С	С	· c	
Bedstraw, catchweed Galium aparine	S	C	C	С	С	С	
Bluegrass, annual Poa annua	S	С	С	C	С	С	
Chervil Chaerophyllum tainturien	. \$	C	—	C	C		
Chickweed, common Stellaria media	s	С	C	С	С	С	
Clover, crimson Tritolium incarnatum	•	S	S	c	С	C	
Clover, large hop Trilolium campestre	•	S	S	С	С	С	
Fescue, tall Festuca arundinaceae	•	•	•	•	s	\$	
Geranium, Carolina Geranium carolinianum	•	•	S	S	c	C	
Benbit Lamium amplexicaule	•	S	С	С	С	c	
Ryegrass Ítalian Lolium multiflorum			s	С	С	С	
peedwell, com	2	c	c		_	_	

^{*}These rates apply only to sites where an established competitive turf is present.

Vetonica arvensis Vetch, common Vicia sativa

WEEDS CONTROLLED OR SUPPRESSED WITH HONCHOS PLUS OUSI*

NOTE: C = Control S = Suppression

			Honcho® + Oust					
WEED Species	Honcho (FL. 02/A) + OUST (02/A)	8 + 1/4	12 + !/4	12 + 1/2	16 + 1/e	16 + 1/2	12 ÷ 	16 + !
Barley, lit Hordeur	ttle n pusilium	¢	С	c	C	C	C	Ç
Bedstraw Galium ,	, catchweed aparine	С	c	C	C	С	C.	C
Biuegras <i>Poa ann</i>	s, annuai va	\$	C	C	С	С	C	C
Chervil Chaerop	hyllum tainturieri	C	С	C	C	C	С	€
Chickwee Stellaria	ed, common media	5	С	C	€.	C	С	C
Clover, co Trifolium	rimson incarnatum	S	S	\$	S	C	C	€
Clover, la <i>Trifolium</i>	rge hop campestre	•	•	8	5	S	С	C
Fescue, 1 Festuca	all arundinaceae	•	•	•	•	•	S	\$
	ı, Carolina m carolinianum	•	S	\$	C	C	C	C
Henbit <i>Lamium</i>	amplexicaute	•	\$	C	¢	C	C	·C
Ryegrass Lolium n	, Italian n <i>ultiflorum</i>	٠	S	S	c	.£	C	C

Speedwell, com <i>Veronica arvensis</i>	\$	C	C	C	С	C	Ċ
Vetch, common Vicia sativa	-C	C	C	C	C	C	C

^{*}These rates or mixtures of rates apply only to sites where an established competitive turf is present.

RELEASE OF ACTIVELY GROWING BERMUDAGRASS

When applied as directed, this product will aid in the release of bermudagrass by providing control of annual species listed in the "WEEDS CONTROLLED" section of this and the Oust label, and suppression or partial control of certain perennial weeds.

For control or suppression of those annual species listed on this tabel, use I to 3 pints of this product as a broadcast spray in 10 to 25 gallons of spray solution per acre. Use the lower rate when treating annual weeds below & inches in height (or length of runner in annual vines). Use the higher rate as weeds increase in size or as they approach flower or seedhead formation.

Use the higher rate of this product for partial control of the following perennial species. Use the lower rates for suppression of growth. For best results, see the "WEEDS CONTROLLED" section of this label for proper stage of growth.

Bahiagrass

*22stgnozadol Sorghum halepense

Paspalum notatum

Bluestem, silver

immpetcreeper**

Andropogon saccharoides

Campsis radicans Vaseygrass

Fescue, tall

Paspalum urvillei

Festuca arundinacea *Control at the higher rates.

*Suppression at higher rates only.

This product may be tank-mixed with Oust. If tank-mixed, use no more than 1 to 2 pints per acre of this product with 1 to 2 ounces of Oust per acre.

Use the lower rates of both mixtures to control annual weeds below 6 inches in height (or runner length in annual vines) that are listed in the "WEEDS CONTROLLED" section of this booklet and the Oust label. Use the higher rates as annual weeds increase in size and approach the flower or seedhead stages.

Use the higher rates of this product to provide partial control of the following perennial weeds. Use the lower rates for suppression of growth.

*azsrgnozadol

Diodia teres Trumpetcreeper*

Vaseverass

Vervain, blue

Poprioe**

Sorghum halepense

Campsis radicans

Paspalum urvillei

Verbena hastata

8ahiagrass

Pasoalum notatum

Bluestem, silver Andropogon saccharoides

Broomsedge Andropogon virginicus

Dock, curty Rumex crispus

Doglennel Eupatorium capilliforium

Fescue, tall Festuca arundinacea

*Suppression at higher rates only.

**Control at the higher rates.

Use only on well-established bermudagrass. Bermudagrass injury may result from the treatment but regrowth will occur under moist conditions. Receat applications in the same season are not recommended, since severe injury may result.

Read and carefully observe the cautionary statements and all other information appearing on the labels of all herbicides used.

COOL SEASON TURF GROWTH REGULATION

When applied as directed, this product will suppress growth and seedhead development of listed turf species in industrial sites.

This product is recommended for management of coarse turf on roadside rights-of-way or other industrial areas. Do not use on high-quality turf or other areas where some turf color changes cannot be tolerated. Slight turf discoloration may occur but turf will regreen and regrow under moist conditions as effects of this product wear off.

Apply 4 to 6 fluid ounces of this product per acre alone or in a recommended tank mixture. Spray volumes of 10 to 40 gallons per acre are

When using this product mix 2 quarts of a nonionic surfactant per 100 gallons of spray solution.

This product can be used for growth and seedhead suppression of:

Tall Fescue Smooth Brome

For best results, apply this product in a recommended tank mixture to actively growing turfgrasses after greenup in the spring of the year. For suppression of seedheads, applications must be made before boot-to-seedhead stage of development. Applications made from seedhead emergence until maturity may result in turf discoloration or injury.

After mowing or removal of seedheads, this product in a recommended tank mixture may also be used to suppress the growth of certain rungrasses. Allow turl to recover from stress caused by heat, drought or mowing before making applications. Applications made to turf under stress may increase the potential for discoloration or injury.

TO THE PARTY OF

ANNUAL GRASSES

For growth suppression of some annual grasses such as annual ryegrass, wild barley and wild oats, apply 3 to 4 fluid ounces of this product in 10 to 40 gallons of spray solution per acre. Applications should be made when annual grasses are actively growing and before the seedheads are in the boot stage of development. Treatments made after seedhead emergence may cause injury to the desired grasses.

TANK MIXTURES

For the following tank mixtures, consult each product label for weeds controlled and the correct slage of application. Do not treat turf under stress.

Tank mixtures plus 2,4-D Amine

For additional weed control benefits, up to 1 pound all per acre of 2.4-D amine may be added to the following tank mixtures. Consult the label for 2.4-D amine for weeds controlled.

TALL FESCUE

Roncho plus Telar™

For suppression of tail fescue growth and seedheads, and control or partial control of some annual weeds, apply this tank mixture after greenup and prior to boot-to-seedhead stage of development. Use up to 0.5 punce of Telar per acre.

This tank mixture can also be applied after moving or removal of tall fescue seedheads for burt growth suppression. Make only one of the above applications per growing season.

Roncho plus Oust

For suppression of tall fescue growth and seedheads, and control or partial control of some annual weeds, apply this tank mixture after greenup and prior to boot-to-seedhead stage of development. Use up to 0.25 ounce of Oust per acre.

Honcho glus Escort™

This tank mixture can be applied after mowing or removal of tall fescue seedheads for turf growth suppression and control or partial control of some annual weeds. Use up to 1/3 ounce of Escort per acre.

SMOOTH BROME

Honcho plus Gust

For suppression of smooth brome growth and seedheads and control or partial control of some annual weeds, apply this tank mixture after greenup and prior to boot-to-seedhead stage of development. Use up to 0.25 ounce of Oust per acre.

BAHIAGRASS SEEDHEAD AND VEGETATIVE SUPPRESSION

When applied as directed in the indicated noncrop areas (roadsides, airports, golf course roughs, and plant sites), this product will provide significant inhibition of seedhead emergence and will suppress vegelative growth for a period of approximately 45 days with single applications and approximately 120 days with sequential applications.

Apply this product 1 to 2 weeks after full greenup of bahiagrass or after the bahiagrass has been mowed to a uniform height of 3 to 4 inches. Applications must be made prior to seedhead emergence. Apply 6 fluid ounces per acre of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 10 to 25 gallons of water negacine.

Sequential applications of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume may be made at approximately 45 day intervals to extend the period of seedhead and vegetative growth suppression. For continued seedhead suppression, sequential applications must be made prior to seedhead emergence. Apply no more than 2 sequential applications per year. As a first sequential application, apply 4 fluid ounces of this product per acre plus nonionic surfactant. A second sequential application of 2 to 4 fluid ounces per

acre plus nonionic surfactant may be made approximately 45 days after the last application.

A tank mixture of this product plus Oust may be applied only on roadsides for seedhead inhibition and vegetative suppression. Apply 6 fluid ounces per acre of this product plus 0.25 ounce per acre of Oust, plus 0.5 to 1 percent nonionic surfactant by total spray volume I to 2 weeks following an initial spring mowing. When using this product plus Oust for suppression of bahiagrass, make only 1 application per year.

CROPPING SYSTEMS

When applied as directed for "CROPPING SYSTEMS", under the conditions described, this product controls annual and perennial weeds listed on this label, prior to the emergence of direct seeded crops or prior to transplanting of crops listed on this label.

See "GENERAL INFORMATION" and "MIXING, ADDITIVES and APPLI-CATION INSTRUCTIONS" sections of this label for essential product performance information.

See the following "CROPPING SYSTEMS" sections for specific recommended uses.

extreme care must be exercised to avoid contact of spray WITH FOLIAGE, GREEN STEMS OR FRUIT OF DESIRABLE CROPS. PLANTS, TREES OR OTHER DESIRABLE VEGETATION SINCE SEVERE DAMAGE OR DESTRUCTION MAY RESULT.

Repeat treatments may be necessary to control weeds regenerating from underground parts or seed. Except as otherwise specified on this label, repeat treatments must be made before the crop emerges in accordance with the instructions of this label.

Except as otherwise specified in a crop section of this label, the combined total of all treatments must not exceed 8 quarts per acre of this

For any crop not listed below, applications must be made at least 30 days prior to planting.

Do not harvest or feed treated vegetation for 8 weeks following application. Following spot treatment or selective equipment use, allow 14 days before grazing domestic livestock or harvesting forage grasses and legumes.

PUMMELO ROW CROPS CORN (ALL)* TANGELO COTTON* TANGERINE **PEANUTS** TANCORS

SORGHUM (MILO)* **TREE NUTS** SDYBEANS* ALMOND SUGARCANE* BEECHNUT CEREAL GRAINS **BRAZIL NUT**

BARLEY BUTTERNUT BUCKWHEAT* CASHEW MILLET (PEARL, PROSD)* CHESTNUT CHINQUAPIN DATS* RICE** FILBERT (HAZELNUT) RYE*

HICKORY NUT TRITICALE* MACADÁMIA WHEAT (ALL)* **PEÇAN** PISTACHIO WILD RICE*

WALNUT (BLACK, ENGLISH) <u>Citrus</u> Calamondin YINE CROPS CHIRONIA GRAPES

CITRON KIWI FRUIT GRAPEFRUIT TREE FRUITS KUMQUAT APPLE LEMON **APRICOTS** LIME

CHERRY (SWEET, SOUR) MANDARIN ORANGE LOQUAT DRANGE (ALL)

MAYHAW

NECTARINE HONEY BALL MELON*** OLIVE HORSERADISH PEACH KALE PEAR KOHLRASI PLUM/PRUNE (ALL) LEEK QUINCE LENTILS LETTUCE VEGETABLES MANGO MELON*** ARTICHOKE, MELONS (ALL)*** JERUSALEM MUSKMELON*** ASPARAGUS* MUSTARD GREENS BEANS (ALL) OKRA **BEET GREENS** NOINO BEETS (RED, SUGAR) PARSLEY BROCCOLI (ALL) PARSHIPS **BRUSSELS SPROUTS** PEAS (ALL) CABBAGE (ALL) PEPPER (ALL)*** CABBAGE, CHINESE PERSIAN MELON*** CANTALOUPE*** POTATO (IRISH, SWEET) CARROI PUMPKIN*** CAULIFLOWER RADISH CASABA MELON*** RAPE GREENS CELERIAC RHUBARB CELERY RUTABAGA CHARD, SWISS SHALLOT CHICORY SPINACH (ALL) COLLARDS RZAVDZ CRENSHAW MELON*** (SUMMER, WINTER)*** CUCUMBER*** TOMATILLO*** EGGPLANT*** TOMATO***+ ENDIVE TURNIP GARLIC*** WATERCRESS*** GOURDS*** WATERMELON*** GROUND CHERRY*** ZMAY HONEYDEW MELON***

SMALL FRUITS AND BERRIES
BLACKBERRY
BLUEBERRY
BOYSENBERRY
CRANBERRY
CURRANT
DEWBERRY
ELDERBERRY
GOOSEBERRY
HUCKLEBERRY
LOGANBERRY
CLALLIEBERRY
RASPBERRY (BLACK, RED)

COFFEE
DATES
FIGS
GENIP
GUAVA
JABOTICABA
JACKFRUIT
LONGAN
LYCHEE
MANGO
PAPAYA
PASSION FRUIT
PERSIMMONS
PINEAPPLE****

CHERIMOYA

COCOA BEANS

FORAGE CROPS AND LEGUMES
ALFALFA*

FORAGE CRASSES*
FORAGE LEGUMES*

IROPICAL CROPS

ACEROLA ATEMOYA AVOCADO BANANA (PLANTAINS) BREADFRUIT

CANISTEL CARAMBOLA PINEAPPLE****
POMEGRANATE
SAPODILLA
SAPODIC (BLACK, MAMEY
WHITE)
SOURSOP
SUGAR APPLE

TAMARIND

TEA

*Spot treatments may be applied in these crops.

- **Do not treat rice fields or levees when the fields contain flood water.
- ***Apply only prior to planting. Allow at least 3 days between application and planting.
- **** Do not feed or graze treated pineapple forage following applica-

†Use is restricted to direct seeded crops only.

When applying this product prior to transplanting crops into plastic mulch, care must be taken to remove residues of this product from the plastic prior to transplanting. Residues can be removed by 0.5 inch natural rainfall or by applying water via a sprinkler imigation system.

Spot Treatment (Only those crops with """ can be spot treated.) — Applications in growing crops must be made prior to heading of small grains and milo, initial pod set in soybeans, silking of corn, or boll opening on cotton.

For forage grasses and forage legumes see "SPOT IREATMENT" in the "PASTURES" section of "CROPPING SYSTEMS" in this label.

For dilution and rates of application using boom or hand-held equipment, see "MIXING, ADDITIVES and APPLICATION INSTRUCTIONS" and "WEEDS CONTROLLED" sections of this label.

NOTE: FOR FORAGE GRASSES AND FORAGE LEGUMES, NO MORE THAN ONE-TENTH OF ANY ACRE SHOULD BE TREATED AT ONE TIME. FOR ALL OTHER CROPS, DO NOT TREAT MORE THAN 10 PERCENT OF THE TOTAL FIELD AREA TO BE HARVESTED.

THE CROP RECEIVING SPRAY IN TREATED AREA WILL BE KILLED. TAKE CARE TO AVOID DRIFT OR SPRAY OUTSIDE TARGET AREA FOR THE SAME REASON.

Selective Equipment—This product may be applied through recirculating sprayers, shielded applicators or wiper applicators in cotton and soybeans. Shielded and wiper applicators may also be used in tree crops and grapes. Wiper applicators may be used in wheat, rutabagas, forage grasses and forage legumes, including pasture sites and grain sorghum (milo).

See the "SELECTIVE EQUIPMENT" part of the "APPLICATION EQUIP-MENT and TECHNIQUES" section of this label for information on proper use and calibration of this equipment.

Allow at least the following time intervals between application and harvest:

Cotton, Soybeans	days
Apples, Citrus, Pear	day
Atemoya, Avocado, Breadfruit, Canistel, Carambola, Cherry, Grapes, Dates, Jaboticaba, Jackfruit, Longan, Lychee, Passion Fruit, Persimmons, Rutabagas,	doue
Sapodilla, Sapote, Soursop, Sugar Apple, Tamarind 14	
Stone Fruit	days
Nut Crops, except pistachios	days
Pistachio nuts	days
Wheat ¹	days
Sorghum (milo) ^{1,2}	days
Life not use collect applicators	

1 Do not use roller applicators

² Do not feed or graze treated milo fodder. Oo not ensile treated vegetation.

ASPARAGUS

When applied as directed for "CROPPING SYSTEMS" under the conditions described, this product controls weeds listed on this label in asparagus

For specific rates of applications and instructions for control of various annual and perennial weeds, see the "WEEDS CONTROLLEO" section of this label.

Prior to Crop Emergence—Apply this product prior to crop emergence for the control of emerged labeled annual and gerennial weeds. DO NOT APPLY WITHIN A WEEK BEFORE THE FIRST SPEARS EMERGE.

Spot Treatment—Apply this product immediately after cutting, but prior to the emergence of new spears. Do not treat more than 10 percent of the total field area to be harvested. Do not harvest within 5 days of treatment.

Postharvest—Apply this product after the last harvest and all spears have been removed. If spears are allowed to regrow, delay application until ferns have developed. Delayed treatments should be applied as directed or shielded spray in order to avoid contact of the spray with ferns, stems or spears. Direct contact of the spray with the asparagus may result in serious crop injury.

NOTE: Select and use recommended types of spray equipment for postemergence postharvest applications. A directed spray is any application where the spray pattern is aligned in such a way as to avoid direct contact of the spray with the crop. A shielded spray is any application where a physical barrier is positioned and maintained between the spray and the crop to prevent contact of spray with the crop.

BERRIES AND SMALL FRUITS

Wiper applicators may be used in cranberries in accordance with instructions in this section.

For other berries, apply as a preplant broadcast application, or as a directed spray or wiper application post-planting.

See "GENERAL INFORMATION" and "MIXING, ADDITIVES and APPLI-CATION INSTRUCTIONS" sections of this label for essential product performance information.

See the "SELECTIVE EQUIPMENT" part of the "APPLICATION EQUIP-MENT and TECHNIQUES" section of this label for information on recommended use and calibration of this equipment.

Allow a minimum of 30 days between last application and harvest of cranberries. For other small fruits and berries, allow a minimum of 14 days between last application and harvest.

For Wick or other Wiper Applicators—Mix 1 gallon of this product in 4 gallons of water to prepare a 20 percent solution.

In severe infestations, reduce equipment ground speed to ensure that adequate amounts of this product are wiped on the weeds. A second treatment in the opposite direction may be beneficial.

Do not permit herbicide solution to contact desirable vegetation, including green shoots, cames or foliage.

CORN

Hooded Sprayers—This product may be used through hooded sprayers for weed control between the rows of corn. Only hooded sprayers that completely enclose the spray pattern may be used.

A hooded sprayer is a type of shielded applicator. The spray pattern is completely enclosed on the top and all 4 sides by a hood, thereby shielding the crop from the spray solution. This equipment must be set up and operated in a manner that avoids bouncing or raising the hoods off the ground in any way. If the hoods are raised, spray particles may escape and come into contact with the crop, causing damage or destruction of the crop. The spray hoods must be operated on the ground or skimming across the ground. Tractor speed must be adjusted to avoid bouncing of the spray hoods. Avoid operation on rough or sloping ground where the spray hoods might be raised off the ground.

When applying to corn that is grown on raised beds, ensure that the hood is designed to completely enclose the spray solution. If necessary, extend the front and rear flaps of the hoods to reach the ground in deep furrows.

Follow these requirements:

- The spray hoods must be operated on the ground or skimming across the cound.
- Do not apply more than 1 quart of this product per acre per application.
- Corn must be at least 12 inches tall, measured without extending
- Leave at least an 8 inch untreated strip over the drill row. For example, if the crop row width is 38 inches, the maximum width of the spray hood should be 30 inches.

- Maximum tractor speed: 5 mph.
- Maximum wind speed: 10 mph.
- Use low-drift nozzles.

Crop injury may occur when the foliage of treated weeds comes into direct contact with leaves of the crop. Do not apply this product when the leaves of the crop are growing in direct contact with weeds to be treated. Droplets, mist, foam or splatter of the herbicide solution may contact the crop and cause discoloration, stunting or destruction.

Contact of this product in any manner to any vegetation to which treatment in not intended may cause damage. Such damage shall be the sole responsibility of the applicator.

For specific rates of application and instructions for control of various annual and perennial weeds, see the "WEEDS CONTROLLED" section of this label

Do not graze or feed corn forage or fodder following applications of this product through hooded sprayers.

Do not apply more than 3 quarts of this product per acre per year for hooded sprayer applications.

FALLOW AND REDUCED TILLAGE SYSTEMS

FOR AERIAL APPLICATION IN CALIFORNIA, REFER TO SUPPLEMENTAL LABEL.

Use this product in fallow and reduced tillage systems for control of annual weeds prior to emergence of crops listed in this label. Refer to the "WEEDS CONTROLLED" section of this label for specific rates and instructions. This product may be applied using ground or aerial spray equipment. See the "APPLICATION EQUIPMENT and TECHNIQUES" section of this label for instructions.

TANK MIXTURES

- HONCHO® plus BANVEL plus nonionic surfactant
- HONCHO plus 2,4-D plus nonionic surfactant
- HONCHO plus GOAL™
 plus NONIONIC SURFACTANT

DO NOT APPLY BANYEL OR 2.4-D TANK MIXTURES BY AIR IN CALIFORNIA.

Applications of 2,4-0 or Banvel must be made at least 7 days prior to planting corn.

The addition of Banvel in a mixture with this product may provide short-term residual control of selected weed species. Some crop injury may occur if Banvel is applied within 45 days of planting. Refer to the Banvel and 2,4-D labels for cropping restrictions and other use instructions.

Honcho® plus Goal Tank Mixtures

This product alone or in tank mixtures with Goal plus 0.5 to 1 percent nonionic surfactant by total spray volume will provide control of those weeds listed below.

Make applications when weeds are actively growing and at the recommended stages of growth. Avoid spraying when weeds are subject to moisture stress, when dust is on the foliage or when straw canopy covers the weeds.

Honcho 12 Ruid (oz/acre	Honcho 16 fluid oz/a	<u>scre</u>
Wheat	18"*	Annual grasses at left plu	IS:
Barley	12"	Ryegrass.	
Bluegrass,		annual	6"
annual	6°	Chickweed	6™
Barnyardgrass	6"	Groundset	6" 6"
Rye	6"	Marestail	
n)c	. •	Rockel, London	6"
		Shepherdspurse	6"
		Crabgrass	12"
		Johnsongrass,	
		seedling	12"
		Lambsquarters	12"
		Oats, wild	127
		Pigweed, redroot	12-
		Mustards	12"

NOTE: Use 32 fluid ounces of this product per acre where heavy weed densities exist.

Honcho 12 fluid oz/acre		Honcho 16 fluid oz/acre		
+		+		
GOAL** 2 to 4 fluid oz/acre		60AL** 2 to 4 fluid oz/acre		
Annual grasses above plus: Cheeseweed, common Chickweed Groundsel Rocket, London Shepherdspurse	3" 3" 6" 6"	Annual weeds above plus: Cheeseweed, common Groundsel Chickweed Rocket, London Shepherdspurse	6" 6" 12" 12"	

NOTE: Use 32 fluid ounces of this product per acre in mixtures with 2 to 4 fluid ounces of Goal per acre where heavy weed densities exist.

*Maximum height or length in inches.

**Use the higher rate of Goal when weeds approach maximum recommended height or stands are dense.

These recommended tank mixtures may be applied using ground or aerial spray equipment. Refer to the "WEEDS CONTROLLED" section of this label for specific rates and instructions.

ECOFARMING SYSTEMS

The recommendations made in this section are not registered for use in California.

The Ecofarming System consists of the following rotation: winter wheat, corn/sorghum, ecofallow.

Use the following tank mixtures for control of emerged annual weeds before planting corn or sorghum in the Ecofarming System.

	Lasso® at 2.5 to 3 quarts per acre	 _
_	plus	
•	Atrazine at 0.75 to 1 pound a.i. per acre	
_	plus	
	2,4-0 at 0.375 to 0.5 pound a.i. per acre	
	plus	
E	Honcho® at 16 to 20 fluid ounces per acre	

The above tank mixture should be applied in 28-0-0 or 32-0-0 liquid tertilizer carrier at 20 to 30 gattons per acre. The liquid fertilizer may be diluted with water to achieve the desired carrier volume.

WEEDS CONTROLLED - The following weeds, up to a maximum height of 4 inches, with be controlled:

Brome, downy

Lettuce, prickly

Bromus tectorum

Lactuca semola

Cheat Bromus secalinus Pigweed, redroot Amaranthus retroflexus

Foxtail, green Setaria viridis Thistle, Russian Salsola kali

Foxtail, yellow

Wheat, volunteer

Setaria lutescens

Triticum aestivum

Kochia*

Kochia scoparia

*For improved control of kochia, add 4 fluid ounces per acre (0.125 pound a.i. per acre) of Banvel to the above tank mixture.

Risk of crop injury from 2,4-D or Banvet can be reduced by applying this treatment 7 to 14 days before planting.

Refer to the label booklet for Lasso® herbicide for preemergence weed control achieved by this tank mixture.

Refer to the specific product labels for crop rotation restrictions and cautionary statements for all products used in these tank mixtures.

AID TO TILLAGE

This product, when used in conjunction with preplant tillage practices, will provide control of downy brome, cheat, volunteer wheat, tansy mustard and foxtail. Apply 8 fluid ounces of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. Make applications when weeds are actively growing and before they are 6 inches in height. Application must be followed by conventional tillage practices no later than 15 days after treatment

and before regrowth occurs. Allow at least 1 day after application before tillage. Tank mixtures with residual herbicides may result in reduced performance.

POSTHARVEST GRAIN SORGHUM. SORGHUM REGROWTH CONTROL

This product may be applied to grain sorghum (mile) stubble following harvest to suppress or control regrowth. Apply 1 quart of this product per acre for control, or 1.5 pints of this product per acre for suppression, tise 0.5 percent nonionic surfactant in 3 to 10 gallons of spray solution per acre.

PASTURES

Apply this product prior to planting forage grasses and legumes.

Pasture or Hay Crop Renovation—When applied as a broadcast spray, this product controls the annual and perennial weods fisted in this label prior to planting forage grasses or legumes. Remove domestic livestock before application and wait 8 weeks after application before grazing or harvesting.

Spot Treatment-When applied as a spot treatment as recommended, this product controls annual and perennial weeds fisted in this label which are growing in pastures, forage grasses and forage legumes composed of bahiagrass, bermudagrass, bluegrass, brome, fescue, orchardgrass, ryegrass, timothy, wheatgrass, alfalfa or clover.

Wiper Application-When applied as directed, this product controls or suppresses the weeds listed under "WIPER APPLICATORS" in the "SELECTIVE EQUIPMENT" section of this label.

For spot treatment and wiper application, apply in areas where the movement of domestic tivestock can be controlled. No more than onetenth of any acre should be treated at one time. Further applications may be made in the same area at 30-day intervals. Remove domestic livestock before application and wait 14 days after application before grazing livestock or harvesting.

¹ · 尼尔亚普里斯基特联系

SUGARCANE

When applied as directed for "CROPPING SYSTEMS", under the conditions described, this product controls those emerged annual and perannial weeds listed on this labet growing in or around sugarcane or in fields prior to the emergence of plant cane. This product will also control undesirable sugarcane.

NOTE: Where repeat treatments are necessary, do not exceed a total of 10.6 quarts of this product per acre per year. Do not apply to vegetation in or around ditches, canals or ponds containing water to be used for irrigation.

Broadcast Treatment—Apply this product in 10 to 40 gallons of water per acre on emerged weeds prior to the emergence of plant cane.

For specific rates of application and instructions for control of various annual and perennial weeds, see the "WEEDS CONTROLLED" section of this label.

For removal of fast stubble or retoon cane, apply 4 to 5 quarts of this product in 10 to 40 gallons of water per acre to new growth having at least 7 or more new leaves. Allow 7 or more days after application before lillage.

Spot Treatment in or Around Sugarcane Fields.—For ditution and rates of application using hand-held equipment, see "MIXING, ADDITIVES and APPLICATION HISTRUCTIONS" and "WEEDS CONTROLLED" sections of this label.

For control of volunteer or diseased sugarcane, make a 1 percent solution of this product in water and spray to wet the foliage of vegetation to be controlled.

MOTE: When spraying volunteer or diseased sugarcane, the plants should have at least 7 new leaves.

Avoid spray contact with healthy cane plants since severe damage or destruction may result.

On not feed or graze treated sugarcane forage following application.

CONSERVATION TILLAGE. MINIMUM TILLAGE AND NO-TILL SYSTEMS CORN AND SOYBEANS Tank Mixtures

The recommendations made in this section are not registered for use in California.

When applied as recommended under the conditions described, the tank mixtures listed in this section control many emerged weeds, and give preemergence control of many annual weeds where corn or say-beans will be planted directly into a cover crop, established sod or in previous crop residues.

Refer to specific product labels for crop rotation restrictions and cautionary statements of all products used in these lank mixtures. For mixing instructions, see the "MIXING, ADDITIVES and APPLICATION INSTRUCTIONS" section of this label.

Apply these tank mixtures in 10 to 20 gallons of water or 10 to 60 gallons of nitrogen solution per acre before, during or after planting. Do not apply these mixtures after crop emergence.

When tank mixing with residual herbicides, add an agriculturally approved nonionic surfactant at 0.5 to 1 percent by volume of spray solution. The addition of 1 to 2 percent dry ammonium sulfate by weight may increase the performance of this product.

NOTE: When using these tank mixtures, do not exceed 4 quarts of this product per acre.

CORN

For residual control, this product may be tank-mixed with the following herbicides or combination of herbicides:

LASSO/ALACHLOR ATRAZINE
LARIAT® CYANAZINE
BULLET® SIMAZINE
DUAL™ PROWL™
BICEPI™ MICRO-TECH®
PARTNER® 1

For improved burndown, this product may be tank-mixed with 2.4-D or dicamba. Applications of 2.4-D or dicamba must be made at least 7 days prior to planting corn. See the "WEEDS CONTROLLED" section for specific rate information.

SOYBEANS

For residual control, this product may be lank-mixed with the following herbicides or combination of herbicides:

LOROXIM PLUS CANOPYTH PREVIEWIN COMMAND™ DUAL PROWL GEMINITM TURBO™ SCEPTERIM LASSO/ALACHLOR . **LEXONE^{DM}** SENCOR™ SQUADRONTM LINURON PURSUIT PLUS™ **PURSUIT**^{IM} MICRO-TECH® PARTNER

For improved burndown, this product may be tank-mixed with the following herbicides:

OB 2,4-D*

*See the label for 2,4-D for intervals between application and planting.

CORN AND SOYBEANS

Annual Weeds—For difficult-to-control weeds such as fall panicum, barnyardgrass, crabgrass, shattercane and broadleaf signalgrass up to 2 inches tall, and Pennsylvania smartweed up to 6 inches tall, apply this product at 2 pints per acre in these tank mixtures. For other labeled annual weeds, apply 1 to 1.5 pints of this product per acre when weeds are less than 6 inches tall, and 2 to 3 pints when weeds are over 6 inches tall, for a complete list of annual weeds controlled, see the "WEEDS CONTROLLED" section of this label.

Perennial Weeds—At normal application times in minimum tillage systems, perennial weeds may not be at the proper stage of growth for control. See the "WEEDS CONTROLLED" section of this label for the proper stage of growth for perennial weeds.

Use of 2 to 4 quarts of this product per acre in the tank mixtures mentioned above, under these conditions provides top kill and reduces competition from many emerged perennial grass and broadleaf weeds. For emerged perennial weeds controlled, see the "WEEDS CONTROLLED" section of this label.

To obtain the desired stage of growth, it may be necessary to apply this product alone in the late summer or fall and then follow with a label-approved, seedling weed-control program at planting.

USE OF THESE TANK MIXTURES FOR BERMUDAGRASS OR JOHN-SONGRASS CONTROL IN MINIMUM TILLAGE SYSTEMS IS NOT RECOMMENDED. For bermudagrass control, follow the instructions under "CONTROL OF PERENNIAL WEEDS" section of this label and then use a label-approved, seedling weed-control program in a minimum billage or conventional tillage system. For Johnsongrass control, follow instructions under "CONTROL OF PERENNIAL WEEDS" section of this label, and then use a label-approved, seedling weed-control program with conventional tillage.

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PREHARVEST APPLICATIONS

When applied as directed under the conditions described, this product controls annual and perennial weeds tisted on this label prior to the narvest of cotton, soybeans, grain sorghum (mile), and wheat.

For specific rates and application instructions for control of various annual and perennial weeds, see the "WEEDS CONTROLLED" section of this label.

This product may be applied by both ground and aerial application equipment. DO NOT APPLY MORE THAN 1 QUART PER ACRE OF THIS PRODUCT BY AIR. See the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label for instructions for ground and aerial applications.

NOTE: Do not apply to crops grown for seed. Reduction in germination or vigor may occur.

The use of this product for preharvest grain surghum (Milo) is not registered in California.

SOYBEANS

Apply after pods have set and lost all green color. Allow a minimum of 7 days between application and harvest of soybeans. Care should be taken to avoid excessive seed shatter loss due to ground application application.

Do not graze or harvest treated crop for livestock feed within 25 days of last oreharvest application.

OO NOT APPLY MORE THAN 6 QUARTS PER ACRE OF THIS PRODUCT FOR PREHARVEST APPLICATIONS.

COTTON

Broadcast Applications—This product may be applied using either aerial or ground spray equipment. For ground applications with broadcast equipment, apply this product in 10 to 20 gallons of water per acre. For aerial applications, apply this product in 3 to 10 gallons of water per acre.

This product provides weed control and cotton regrowth inhibition when applied prior to the harvest of cotton. Apply 1 to 2 quarts of this product in 3 to 10 gallons of water per acre for cotton regrowth inhibition. Do not apply more than 2 quarts of this product per acre for preharvest applications. THE USE OF ADDITIVES FOR PREHARVEST APPLICATION TO COTTON IS PROHIBITED.

This product may be tank mixed with DEF^{IM} 6, Folex^{IM}, or PrepTM to provide additional enhancement of cotton leaf drop.

Allow a minimum of 7 days between application and harvest of cotton.

Apply after sufficient bolls have developed to produce the desired yield of cotton. Applications made prior to this time could affect maximum yield potential.

Do not feed or graze treated cotton forage or hay following preharvest applications.

GRAIN SORGHUM (MILO)

Make applications at 30% grain moisture or less and at least 7 days prior to barvest.

Apply up to 2 quarts of this product per acre.

WHEAT

Apply after the hard-dough stage of grain (30% or less grain moisture) and at least 7 days prior to harvest.

DO NOT APPLY MORE THAN 1 QUART PER ACRE OF THIS PRODUCT FOR PREHARVEST APPLICATIONS TO WHEAT.

TREE AND VINE CROPS

This product is recommended for weed control in established groves, vineyards, and orchards, or for site preparation prior to transplanting crops listed in this section. Applications may be made with boom equipment, CDA, shielded sprayers, hand-held and high-volume wands, tances, orchard guns or with wiper applicator equipment, except as directed in this section. See the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label for specific information on use of equipment.

When applying this product, refer to the "WEEDS CONTROLLED" section of this label and to specific recommendations in this section for rates to be used.

KOTE

Repeat treatments may be necessary to control weeds originating from underground parts of untreated weeds or from seeds. This product does not provide residual weed control. For subsequent weed control, use repeated applications of this product. Do not apply more than 10.6 quarts of this product per acre per year.

EXTREME CARE MUST BE EXERCISED TO AVOID CONTACT OF HERBI-CIDE SOLUTION, SPRAY, DRIFT OR MIST WITH FOLIAGE OR GREEN BARK OF TRUNK, BRANCHES, SUCKERS, FRUIT OR OTHER PARTS OF TREES OR VINES. CONTACT OF THIS PRODUCT WITH OTHER THAN MATURED BROWN BARK CAN RESULT IN SERIOUS CROP DAMAGE.

AVOID PAINTING OUT STUMPS WITH THIS PRODUCT AS INJURY RESULTING FROM ROOT GRAFTING MAY OCCUR IN ADJACENT TREES.

Reduced control may result when applications are made to annual or perennial weeds that have been mowed, grazed or cut and have not been allowed to regrow to the recommended stage for breatment.

For specific rates of applications and instructions, see the "WEEDS CONTROLLED" section of this label, and to specific recommendations which follow

MIDDLES MANAGEMENT

FOR ANNUAL WEEDS IN MIDDLES BETWEEN ROWS OF TREE AND VINE CROPS

For citrus crops, treat uniformly between trees.

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HONCHO plus GOAL

This product alone or in mixtures with Goal will control or suppress the annual weeds listed below.

Apply the recommended rates of this product, either alone or in mixtures with Goal, plus 0.5 to 1 percent nonionic surfactant by spray volume in 3 to 10 gallons of water per acre. Apply when weeds are actively growing and less than 6 inches in height or diameter. If weeds are under drought stress, irrigate prior to application. Reduced control may occur if weeds have been mowed prior to application, tip to 48 fluid ounces per acre of this product may be used to control weeds, which have been mowed, are stressed or are growing in dense populations.

WEED SPECIES	MAXIMUM HEIGHT/ DIAMEYER (INCHES)	HONCHO®	R ACRE GOAL (FLUID OUNCES)
Barley Hordeum vulgare	6	8	
Bluegrass, annual Poa annua			
Barnyardgrass Echinochloa crus-galli	6	12	_
Chickweed, common Stellaria media	-	· 	
Red Maids - Calandrinia ciliata			

- WEED SPECIES	MAXIMUM HEIGHT/ DIAMETER (INCHES)	RATE PER ACRE Honcho™ Goal '(Fluid (Fluid Ounces) Ounces)
Crabgrass Digitaria spp.	б	16 —
Fleabane, hairy Conyza bonariensis		OR
Groundsel, common Senecio vulgeris		16 to 32 ÷ 4 to 16**
lunglerice Echinochloa colonum		i
Lambsquarters, common Chenopodium album		
Pigweed, redroot Amaranthus retroilexus		
Rocket, London Sisymbrium irio	•	
Ryegrass, common Lolium multillorum		
Shepherdspurse Capsella bursa-pastoris		
Sowthistle, annual Sonchus oleraceus		
Cheeseweed, common Malva spp.	3	12 to 32 ÷ 4 to 16
Cheeseweed, common Malva spp.	5	16 to 32 + 4 to 16
		l '

Filaree* <i>Erodium spp.</i>		
Horseweed/Marestail Conyza canadensis		
Nettle, stinging Urtica dioica		
Purselane, common* Purtulaca oleracea		

^{*}Suppression only.

STRIPS

FOR ANNUAL AND PERENNIAL WEEDS IN STRIPS OF TREE AND VINE CROPS

■ TANK MIXTURES WITH RESIDUAL HERBICIDES

When applied as a tank mixture, this product provides control of the emerged annual weeds and control or suppression of emerged perennial weeds listed in this label. The following residual herbicides will provide preemergence control of those weeds listed in the individual product labels.

		99
•	HONCKO plus SIMAZINE BOW	
•	. HONCHO plus SIMAZINE 4L	
	HONCHO plus SIMAZINE, Princep Caliber 90	1
	HONCHO plus KROVAR II	
-	HONCHO plus KROVAR I	
	HONCHO plus KARMEX™ DF	
	HONCHO© plus GOAL 2XL	

^{**}The mixture of this product plus Goal is recommended when weeds are stressed or growing in dense populations.

		100
• ·	HONCHO plus SOLICAM™ 80DF	
•	HONCHO plus SURFLAN AS	
	HONCHO plus SURFLAN 75W	
•	HONCHO plus SIMAZINE (80W, or 4L, or PRINCEP CALIBER 90) plus SURFLAN (AS or 75W)	•
-	HONCHO plus GOAL 2XL plus Surflan (AS or 75W)	•
-	HONCHO plus GOAL 2XL plus S(MAZINE (80W, or 4L, or PRINCEP CALIBER 90)	•
	NONCNO plus GOAL ZXL pius SURFLAN (AS or 75W) pius SIMAZINE (80W, 4L,	•

Do not apply these tank mixtures in Puerto Rico.

When tank-mixing with residual herbicides, add an agriculturally approved nonionic surfactant at 0.5 to 1 percent by volume of spray

or PRINCEP CALIBER 90)

Refer to the individual product labels for specific crops, rates, geographical restrictions and precautionary statements.

Read and carefully observe the label claims, cautionary statements. rates and all other information on the labels of all products.

RECOMMENDED RATES

Annual Weeds—Apply 1 to 5 quarts per acre of this product in these tank mixtures. Use rates at the higher end of the recommended range when weeds are stressed, growing in dense populations or are greater than 12 inches tall.

Perennial Weeds-Apply 1 pint to 5 quarts per acre of this product in these tank mixtures to control or suppress perennial weeds. Follow the recommendations in the "WEEDS CONTROLLED" section of this label for stage of growth and application rates for specific perennial weeds.

HONCHO® plus GOAL plus SIMAZINE/SURFLAN

This product plus low rates of Goal in 3-way or 4-way mixtures with simazine and/or Surflan will provide postemergence control of the weeds listed below.

Refer to the individual simazine and Surflan labels for preemergence rates, weeds controlled, precautionary statements and other impor-

Apply these tank mixtures in 3 to 40 gallons of water. Add 0.5 to 1 percent nonionic surfactant by total spray volume to the spray solution.

Apply 1 to 5 quarts per acre of this product plus 4 to 48 fluid ounces. per acre of Goal plus labeled rates of simazine and/or Surflan to control the following weeds:

Barley, wild

Hordeum leparinum

Bluegrass, annual

Ров аппив

Cheeseweed, common

Malva spp. Chickweed, common

Stellaria media

Filaree*

Erodium spp.

Fleabane, bairy Conyza bonariensis

Graundsel, common Senecio vulgaris

Horseweed/Marestail

Conyza canadensis

Nettle, stinging Urtica dioica

Pineappleweed

Matricaria matricariodes

Rocket, London Sisymbrium irio

Shepherdspurse

Capsella bursa-pastoris

Sowthistle, annual

Sonchus oleraceus

*Use a minimum of 1.5 quarts of this product in these mixtures.

NOTE: This recommendation does not preclude the use of Goal in these mixtures at higher, tabeled rates for preemergence weed control.

PERENNIAL GRASS SUPPRESSION ORCHARD FLOORS

When applied as directed, this product will suppress vegetative growth as indicated below.

Rahizorass

This product will provide significant inhibition of seedhead emergence and will suppress vegetative growth for a period of approximately 45 days with a single application and approximately 120 days with sequential applications. Apply this product 1 to 2 weeks after full green-up or after mowing to a uniform height of 3 to 4 inches. Applications must be made prior to seedhead emergence. Apply 6 fluid ounces of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 10 to 25 gallons of water per acre.

Sequential applications of this product plus nonionic surfactant may be made at approximately 45-day intervals to extend the period of seedhead and vegetative growth suppression. For continued seedhead suppression, sequential applications must be made prior to seedhead emergence. Apply no more than 2 sequential applications per year. As a first sequential application, apply 4 fluid ounces of this product plus nonionic surfactant. A second sequential application of 2 to 4 third ounces may be made approximately 45 days after the last application.

Bermudagrass

For burndown, apply 1 to 2 quarts of this product plus 0.5 to 1 per-cent nonionic surfactant by total spray volume in 3 to 20 gallons of water per acre. Use 1 quart of this product in 3 to 20 gallons of water per acre east of the Rocky Mountains. Use 1 to 2 quarts of this product in 3 to 10 gallons of water per acre west of the Rocky Mountains. Use this treatment only if reduction of the bermudagrass stand can be tolerated. When burndown is required prior to harvest, allow at least 21 days to ensure sufficient time for burndown to occur.

Suppression only (east of the Rocky Mountains)-Apply 6 to 16 fluid ounces of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 20 gallons of water per acre no sooner than 1 to 2 weeks after full green-up. Mowing prior to application may occur provided a minimum height of 3 inches is maintained. Rates of 6 to 10 fluid ounces of this product plus nonionic surfactant should be used in shaded conditions or where a lesser degree of suppression is desired. Sequential applications may be made when regrowth occurs and bermudagrass injury and stand reduction can be tolerated.

Suppression only (west of the Rocky Mountains) -- Apply 16 fluid ounces of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre to bermudagrass up to 6 inches in height and no sooner than 1 to 2 weeks after full green-up. Mowing prior to application may occur provided a minimum height of 3 inches is maintained. Sequential applications may be made when regrowth occurs and bermudagrass injury and stand reduction can be tolerated.

Cool Season Grass Covers

For suppression of tall fescue, fine fescue, orchardgrass and quackgrass, apply 8 fluid ounces of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 10 to 20 gallons of water per acre. For best suppression, add ammonium sulfate to the spray solution at a rate of 2 percent by weight or 17 pounds per 100 gallons of

For suppression of Kentucky bluegrass covers, apply 6 fluid ounces of this product plus 0.5 to 1 percent nonionic surfactant. Do not add ammonium sulfate.

For best results, mow cool-season grass covers in the spring to even their height and apply the recommended rate of this product 3 to 4 days after mowing. Avoid treating cool season grass covers under poor growing conditions, such as drought stress (drip irrigation), disease or insect damage.

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LOW VOLUME APPLICATION . (FLORIDA AND TEXAS)

For burndown or control of the weeds listed, apply the recommended rates of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 30 gallons of water per acre. Where weed foliage is dense, use 10 to 30 gallons of water per acre.

Annual Weeds

Goatweed—Apply 2 to 3 quarts per acre of this product plus 17 pounds of ammonium suffate per 100 galfons of water plus 0.5 to 1 percent nonionic surfactant by total spray volume. Apply in 20 to 30 galfons of water per acre when plants are actively growing. Use 2 quarts per acre when plants are less then 8 inches tall and 3 quarts per acre when olants are greater than 8 inches tall, the addition of Krovar II or Karmex may improve control. Use labeled rates for these residual products.

Read and carefully observe the label claims, cautionary statements, rates and all other information on the Krovar II and Karmex labels.

Perennial Weeds

Apply when weeds are actively growing and at the growth stages tisted in the "PERENNIAL WEEDS CONTROLLED" section of this label. If perennial weeds are mowed, allow weeds to regrow to the recommended stage of growth:

S = Suppression PC = Partial control	B = Burndown C = Control Honcho® RATE PER ACRE				
WEED					
SPECIES	1 qt	2 qts	3 qts	5 qts	
Bermudagrass	8	•	PC	С	
Guineagrass Texas and Florida Ridge Florida Flatwoods	. В	€	C	C	
Paragrass	. В	C	¢	C	
Torpedograss	\$	•	PC	C	

TREE CROPS

Citrus*****: calamondin, chironja, citron, grapefruit, kumquat, lemon, lime, mandarin orange, orange, pummelo, tangelo, tangerine, tangers.

Nuts**: almond, beechnut, Brazil nut, butternut, cashew, chestnuts, chinquapin, filbert, hazel nut, hickory nut, macadamia, pecan, pistachio, walnut.

Pome Fruit****: apple, loquat, mayhaw, pear, quince.

Stone Fruit***: apricots, cherries, nectarines, olives, peaches, plums/prunes.

for chernes, any application equipment listed in this section may be used in all states.

For citron and olives, apply as a directed spray only.

Any application equipment fisted in this section may be used in apricots, nectarines, peaches and plums/prunes growing in Arizona, Catifornia, Colorado, Idaho. Kansas, Kentucky, New Jersey, North Dakota, Oklahoma, Oregon, Texas, Utah and Washington, except for peaches grown in the states specified in the following paragraph. In all other states use wiper equipment only.

For PEACHES grown in Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina and Tennessee only, apply with a shielded boom sprayer or shielded wiper applicator, which prevents any contact of this product with the foliage or bark of trees. Apply no later than 90 days after first bloom. Applications made after this time may result in severe damage. Remove suckers and low-hanging limbs at least 10 days prior to application. Avoid applications near trees with recent pruning wounds or other mechanical injury. Apply only near trees which have been planted in the orchard for 2 or more years. EXTREME CARE MUST BE TAKEN TO ENSURE NO PART OF THE PEACH TREE IS CONTACTEO.

THE STATE OF THE S

Tropical Fruit: acerola*, atermoya*, avocado*, banana*****, breadiruit*, canistel*, carambola*, cherimoya*, cocoa beans*, coffee****, dates*, figs*, genip*, guava*****, jaboticaba*, jackfruit*, longan*, lychee*, mango*, mayhaw*, papaya*****, passion fruit*, persimmons*, plantains****, pomegranate*, sapoditla*, sapote*, soursop*, sugar apple*, temarind*, tea*. In coffee and banana, delay applications 3 months after transplanting to allow the new coffee or banana plant to become established.

NOTE

- *Allow a minimum of 14 days between last application and harvest.
- **Allow a minimum of 3 days between last application and harvest of these crops, except pistachio nuts. For pistachio nuts allow a minimum of 21 days between fast application and harvest
- ****Allow a minimum of 17 days between last application and harvest.
- ****Allow a minimum of 28 days between last application and baryest
- *****Allow a minimum of 1 day between last application and harvest

VINE CROPS

Kiwi Fruit

Grapes: Any variety of table, wine or raisin grape may be treated with any equipment listed in this section.

Applications should not be made when green shoets, canes, or foliage are in the spray zone.

Allow a minimum of 14 days between last application and harvest. In the northeast and Great Lakes regions, applications must be made prior to the end of bloom stage of grapes to avoid injury.

*Bullet, Lasso, Micro-Tech, Partner, Honcho and Lariat are registered trademarks of Monsanto Company.

™Oust, Krovar, Escort, Tefar, Canopy, Gemini, Lexone, Lorox Plus, Divron, Preview and Karmex are trademarks of E.I. duPont de Nemours and Company.

TMDual, Bicep, Princep and Caliber are trademarks of Novartis Corporation.

TMSurflan is a trademark of DowElanco Products Company.

**Banvel and Solicam are trademarks of Sandoz, Inc.

TMRonstar, Folex and Prep are trademarks of Rhone-Poulenc, Inc.

^{EM}Goal is a trademark of Rohm and Haas Company.

TMSencor and Turbo are trademarks of Bayer AG.

 $^{\text{TM}}\text{Prowl}$, Pursuit, Pursuit Plus, Scepter and Squadron are trademarks of American Cyanamid Company.

™Command is a trademark of FMC Corporation.

FMDEF is a trademark of Mobay Chemical Company.

**Microfoil is a trademark of Union Carbide Agricultural Products.

"Thru-Valve is a trademark of Waldrum Specialties, Inc.

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This product is protected by U.S. Patent No. 4,405,531. Other patents pending. No license granted under any non-U.S. patent(s).

EPA Reg. No. 524-445

21152V1-3/53

In case of an emergency involving this product, Call Collect, day or night, (314) 694-4000.

Moncho is a registered trademark of Monsanto Company.

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MONSANTO COMPANY ST. LOUIS, MISSOURI 63167 U.S.A.

This product is protected by U.S. Patent No. 4,405,531. Other patents pending. No license granted under any non-U.S. patent(s).

EPA Reg. No. 524-445

21152VI-3/53

In case of an emergency involving this product, Call Collect, day or night, (314) 694-4000.

Honcho is a registered trademark of Monsanto Company.

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MONSANTO COMPANY ST. (OUIS, MISSOURI 63167 U.S.A.

Please read instructions on	reverse before completing form.	Form Ap	proved. OMB No. 2070-	0060. Approval expires 2-28-9		
	United States	•	Registration	OPP Identifier Number		
Environmental Protection Agen			Amendment	232085		
	Washington, DC 20	0460	Other	202000		
<u></u>	Applicat	ion for Pesticide - Sec	tion I			
1. Company/Product Number	91	2. EPA Product Man	-o	. Proposed Classification		
Monganto	<u> </u>	Mr. Jame	s A. Tompkins	None Restricted		
4. Company/Product (Name Honcho		PM 25				
5. Name and Address of Ap		6. Expedited Rev		vith FIFRA Section 3(c)(3)		
1700 597	to Co Suite	\$1100 (b)(i), my product i	is similar or identical in	composition and labeling		
	ton DC Z000		EPA Reg. No.			
	s is a new address	J				
Check II link	2 12 B UAM 8001822	Product Name				
		Section - II	NAT	: !P(0:500):		
Amendment - Explai	n below.	Final printe	NOT d labels in response to ter dated			
Resubmission in res	ponse to Agency letter dated		Application. OCT	1 5 1997		
Notification - Explain		Other - Exp		Karaja da karaja		
Explanation: Use addition	nal page(s) if necessary. (For section of n	on I and Section II.)				
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•				Herbicide		
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		Section - III	····	· · · · · · · · · · · · · · · · · · ·		
Material This Product Wi. Child-Resistant Packaging	Unit Peckeging	Water Soluble Packaging	2. Type of Conta			
Yes*	Yes	Yes	Met	11 (1 m) 1 m)		
N∘	X No	No.	Plas Glas			
* Certification must	If "Yes" No. per	If "Yes" No. per	Pap			
· submitted	Unit Packaging wgt. container	Packaga wgt containe	r [Oth	er (Specify)		
3. Location of Net Contents	Information 4. Size(s) Re	etail Conteiner	5. Location of Label Dire	ections		
Label C	Container 2.5 30	al & 30 gal.	On Labeling ac	companying product		
5. Manner in Which Label is	Affixed to Product Litho	greph r glued (30 gal)	plastic s	leeve (2.5 gal)		
	Section - IV					
1. Contact Point (Complete	1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)					
De. Russell	P. Schneider	Agerc. Regul. D	, ,	hone No. (Include Area Code)		
Certification 6. Date Application						
certify that the statements I have made on this form and all attachments thereto are true, accurate and complete.						
l acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.						
2. Signature	1111 4	3. Title		4 64		
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4. Typed Name		5. Date	d	7.20		
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PAPERWORK REDUCTION ACT NOTICE and INSTRUCTIONS

PAPERWORK REDUCTION ACT NOTICE: Public reporting burden for this collection of information is estimated to everage 0.85 hour per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other espect of this collection of information, including suggestions for reducing this burden, to Chief, Information Policy Brench, (2136), U.S. Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460; and to the Office of Information and Redulator Affairs, Office of Management and Budget, Washington DC 20503.

INSTRUCTIONS: This form is to be used for all applications for new registration, and use reregistration, amendment, resubmission, to applications for notifications, final printed labeling, reregistration, etc. In order to process an application for a new registration submitted on this form, the following material must accompany the application:

- 1. Certification with Respect to Citation of Data (EPA Form 8570-29). [II how exempted by 40 CFR 152321-(b) (4)] 700 14th St WW Viashington OC Zeess
- 2. Confidential Statement of Formula (EPA Form 8570-4);
- 3. Formulator's Exemption Statement (EPA Form 8570-27);
- Five copies of draft labeling;
- 5. Three copies of any data submitted;
- 6. Authorization letter where applicable;
- Matrices where applicable.

Submission of Labeling - Labeling should first be submitted in the form of draft labels with all applications for new registration. Such draft labels may be in the form of typed hand feet on \$.5% 11 inch paper for submission or a mockup of the proposed label. If prepared for mockup, it should be constructed in a way as to facilitate storage in an 8.5 x 11 inch file. Mockup labels significantly smoller than 8.5 x 11 inches should be mounted on 8.5 x 11 inch paper for submission.

Submission of Data - Data submitted in support of this application must be submitted in accordance with PR Notice 86-5.

SPECIFIC INSTRUCTIONS: Please read the instructions listed below before completing this application. First determine the type of registration action, listed in Block A, for which you are submitting this application. For applications submitted in connection with New Registration actions, Sections I, III, and IV must be completed by the applicant. For applications submitted in connection with amended reregistration actions, resubmissions. notifications, reregistrations, etc., Sections I, II, and IV must be completed by the applicant. Block A. Check the appropriate action for which you are submitting this form.

SECTIONIL, This section must be completed, as applicable, for all registration actions.

- Company/Product Number Insert your Company Number, if one has been assigned by EPA. This number may have been assigned to you as a basic registrant, a distributor, or as an establishment. If your product is registored, insert the Product Numbor.
- EPA Product Manager If known, fill in the name and PM number of the EPA Product Manager.
- Proposed Classification Specify the proposed classification of this product.
- Product Name Enter the complete product name of this pesticide as it will appear on the label. The name must be specific to this product only. Duplication of names is not permitted among products of the same company. Do not include any brand name or company line designations.
- Name and Address of Applicant The name of the firm or person and address shown in your application is the person or firm to whom the registration will be issued. If you are acting in behalf of another party, you must submit authorization from that party to act for them in registration matters. An applicant not residing in the United States must have an authorized agent residing in the United States to act for them in all registration matters. The name and complete mailing address of such an agent must accompany this applications
- Expedited Review FIFRA section 3 (c) 3 (B) provides for expedited review of applications for registration, or amendments to existing registrations, that are similar or identical to other pasticide products that are currently registered with the EPA. In order for your application to be eligible for expedited review, you must provide us with the EPA Registration Number and product name of the product you believe is similar to or identical to your product. The product must be similar or identical in both formulation and labeled uses.

SECTION II - This section must be completed for all applications appointed to affend the registration only of a currently registered product (Amendment), for agreementsion in response to an Agency letter, for notifications to the Agency, for the submission of final printed labelling, for reregistration and for any state action that per line to a specific PRA-registered product. This section is not to be used for a new application for registration.

1. Subject of submission - Check the applicable block and provide the Agency letter date if appropriate. Provide a brief explanation of the purposets) for the aubmission, such as "the addition of a site, post or crop (specify)"; "amend the Confidential Statement of Formula by..."; "reregistration submission"; "general label revision of use directions." Attach a seperate page if additional space is needed.

SECTION III (Peckaging and Container Information) - This Section must be completed for all applications submitted in connection with new

registration or applicable comendments.

1. Type of Pockaging Check the appropriate block if your product will be packaged in the indicated backaging

indicate the size, of the individual packets and number per retail container. Type of Refail Container - Indicate type of container in which product will be marketed.

- Location of Net Contents Indicate the location of the net contents information for your product.
- Cizu(s) of Retail Container Specify the net contents of all retail containers for your product.
- Location of Use Directions Indicate the location of the use directions for your product.
- Manner in which label is affixed to product Indicated the method product label is attached to retail container.

SECTION IV (Contact Point) This section must be completed for all applications for Registration actions, i.e. have products registrate resubmission, "me-too," reregistration, etc. explanatocy. 🖫

Use Only.

Monsanto

Monsanto Company Suite 1100 700 14th Street, N.W. Washington, D.C. 20005

October 7, 1997

Hand Delivered

Office of Pesticide Programs
Document Processing Center (NOTIF)
U.S. Environmental Protection Agency
Room 266A, Crystal Mall #2
1921 Jefferson Davis Highway
Arlington, VA 22202

Attention:

.

Mr. James A. Tompkins (7505C)

Team Leader (25)

Subject:

Honcho® Herbicide

New Brand name under EPA Reg. No. 524-445

Dear Mr. Tompkins:

Monsanto herein notifies EPA of the use of a new brand name "Honcho Herbicide" for EPA Registration Number 524-445. We enclose five (5) copies of draft product labeling for this new product. The labeling is comprised completely of text that has have been already approved by the Agency on other 524-445 brands; this label is merely a rearrangement of the desired text into a single label booklet. This label will be the base label for several Distributor Supplemental registrations Monsanto will submit in the following weeks.

The underlying text for this Honcho Herbicide label was approved by EPA for Roundup® Herbicide (EPA Reg. No. 524-445) on April 6, 1994. In order to completely document the source of incremental changes to that basic text, we have marked deletions by strikeout, and additions by double underline. The origin of the differences between the April-94 approval and the present text, and the dates on which they were approved by

Mr. James A. Tompkins Oct. 6, 1997 Page 2

the Agency, are summarized below. I stress that these changes are not amendments to the registration requiring Agency approval but are rather incorporation of previous approvals.

Subject	Page	Date Approved by EPA	Label on which approved
Basic label text	NA	6-April-94	Roundup Herbicide
Hooded Sprayers for Com	85-6	26-Apr-95	Roundup Herbicide (pr pl 21001T1-26)
Preharvest grain sorghum	96-7	28-Mar-97	Roundup Herbicide (pr pl 21001V1-20)
1-day PHI bananas	106	31-Jan-96	Roundup Herbicide supplemental (not printed)
1-day PHI pome fruit	83, 105	26-Apr-95	Roundup Herbicide (pr pl 21001T1-23)
1-day PHI citrus	83, 105	25-Mar-96	Roundup Herbicide supplemental (not printed)
Silvicultural & Rights of Way sites	58 - 65	NA .	Glyphos® Herbicide label booklet 1995-1 (pr pl 21110S1-3/53)

Additional Explanation

- Bananas: Through the use of asterisks, the PreHarvest Interval (PHI) for bananas is changed to 1 day to reflect the shortened time approved on present supplemental labeling for Roundup Herbicide (page 106).
- Pome fruits: Through the use of asterisks, the PHI for pome fruits is changed to 1 day to reflect the present supplemental labeling for Roundup Herbicide (page 105). In addition, under the heading "SELECTIVE EQUIPMENT", the PHI for apples and pears (page 83) is changed to one day; the approved supplemental label includes both broadcast and selective equipment.
- Citrus: Through the use of asterisks, the PHI for citrus fruits is changed to 1 day to reflect the present supplemental labeling (page 105) for Roundup Herbicide. In addition, under the heading "SELECTIVE EQUIPMENT", the PHI for citrus (page 83) is changed to one day; the approved supplemental label includes both broadcast and selective equipment.

Mr. James A. Tompkins Oct. 6, 1997 Page 3

- Preharvest wheat and soybeans: The use of preharvest treatments of glyphosate in wheat and soybeans has now been approved in California via supplemental labeling on 12-Nov-92 and 10-May-94, respectively; the prohibition is therefore deleted (page 96).
- Preharvest grain sorghum: This use is now added to this booklet label (page 97) on the basis of the approved supplemental label for Roundup Herbicide. Preharvest treatment of grain sorghum has not yet been approved in California, and this is noted (page 96).
- Siphoning warning: In the MIXING section of the label (page 8), the language has been modified as requested by Minnesota. This change was communicated to EPA 4-Feb-97 and is printed in the 1996-1 and 1997-1 Roundup Herbicide booklets.
- Preharvest cotton: In the PREHARVEST section of the label (page 96), the language
 has been modified to limit the maximum rate to 2 quarts/acre and prohibiting the use
 of additives. This change was required by EPA in a label approved 21-Feb-96 and its
 implementation on printed labeling was communicated to EPA 4-Feb-97; this
 wording is printed in the 1996-1 and 1997-1 Roundup Herbicide booklets.
- Silvicultural sites and Rights-of-Way: These uses were deleted from the Roundup Herbicide labeling on 6-Apr-94. However, they were preserved on this registration number on the Glyphos Herbicide distributor supplemental label (EPA Reg. No. 524-445-4787). We wish to extend these use sites to the Honcho Herbicide label using the same label text presently used for Glyphos; they can be found on pages 51, 52, and 58 65 of the enclosed label.

Since this label will be the basis of several additional Distributor Supplemental labels, Monsanto requests that the Agency please stamp one copy and return it to us for our files.

If you have any questions on this matter please feel free to contact me through Dr. Russell P. Schneider or directly at 314-694-1582.

Sincerely,

Stephen J. Wratten

Manager, Registrations

cc: R. P. Schneider

Monsanto

Monsanto Company Suite 1100 700 14th Street, N.W. Washington, D.C. 20005

January 8, 1998

Hand Delivered

Office of Pesticide Programs
Document Processing Center (Final Printed Labeling)
U.S. Environmental Protection Agency
Room 266A, Crystal Mall #2
1921 Jefferson Davis Highway
Arlington, VA 22202

Attention:

Mr. James A. Tompkins (7505C)

Team Leader (25)

Subject:

Honcho® Herbicide (EPA Reg. No. 524-445)

Submission of Final Printed Supplemental Labels

Aerial Application in Fresno County

Dear Mr. Tompkins:

On 7-Oct-97, Monsanto submitted to EPA notice of "Honcho Herbicide" as a new brand name under EPA Reg. No. 524-445, accompanied by draft text for a full use label booklet based completely on text already approved for Roundup Herbicide, also a 524-445 brand name. Those use instructions refer to supplemental labeling for aerial application in California. Labels for aerial application of Roundup® Herbicide in California and in Fresno County have also been previously approved.

Herein, Monsanto encloses five (5) copies of Final Printed Labels which extend that previously approved text to Honcho Herbicide. The new label is identified by the Print Plate Number 21152V1-6 and is dated 29-Dec-97.

If you have any questions on this matter please feel free to contact me through Dr. Russell P. Schneider or directly at 314-694-1582.

Sincerely,

Stephen J. Wratten

Manager, Registrations

ćc:

R. P. Schneider

D. Fee-White

D. Rasmusson

A. Hedgecock

Please read instruction	on reverse before completing	form.	Form As	proved. OM	3 No. 2070-0080	D. Approval expires 05-31-98
\$EPA	Environmental P	d States rotection Age in, DC 20460	ncy	An	gistration nendment her	OPP Identifier Number
	Ap	plication for	Pesticide - Se	ction I		
1. Company/Product No	umber 524-445		2.EPA Product M Mr. James		_ ا _	roposed Classification
4. Company/Product (N	l eme) Honcho® Herbic	ide	PM#	25]. L <u>×</u>	None Restricted
Monsanto 700 14th Washingt	of Applicant (Include ZIP Code) Company Street, N.W., Suit con, DC 2D005 If this is a new address	e 1100		ct is similar o	r identical in co	n FIFRA Section 3(c)(3) composition and labeling
<u>-</u>		Sec	tion - II			
Amendment - Ex	response to Agency letter date	ed	Agency I	ited labels in r etter dated * Application. xplain below.	· · · · · · · · · · · · · · · · · · ·	October 7, 1997
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Name	ell P. Schneider	Title A	gricultural irector	 	n Telephor	r application.) no No. (Include Area Code) 783+2460-9
	statements I have made on this at any knowingly false or misle	ading statement ma		fine or imprise		8. Pate Application Received (Stamped)
4. Typed Name Ste	phen J. Wratten, Ph	. 0. 5. Date	January 8	, 1998	······	em sentemen 2024 :
EPA Form 8570-1 (Rev.	8-94) Previous editions are obs	olete.	Y	White - EPA Fil	e Copy (original	Yellow - Applicant Cop

PAPERWORK REDUCTION ACT NOTICE and INSTRUCTIONS

PAPERWORK REDUCTION ACT NOTICE: Public reporting burden for this collection of information is estimated to average 0.85 hour per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Chief, Information Policy Branch, (2135), U.S. Environmental Protection Agency, 401 M Street, SW. Washington, DC 20460.

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- 1. Certification with Respect to Citation of Date (EPA Form 8570-29). (If not exempted by 40 CFR 152.81 (b) (4));
- Confidential Statement of Formula (EPA Form 8570-4);
- 3. Formulator's Exemption Statement (EPA Form 8570-27);
- 4. Five copies of draft labeling;
- Three copies of any data submitted;
- Authorization letter where applicable;
- Matrices where applicable.

Submission of Labeling - Labeling should first be submitted in the form of draft labels with all applications for new registration. Such draft labels may be in the form of typed label text on 8.5 x 11 inch paper for submission or a mockup of the proposed label. If prepared for mockup, it should be constructed in a way as to facilitate storage in an 8.5 x 11 inch file. Mockup labels significantly smaller than 8.5 x 11 inches should be mounted on 8.5 x 11 inch paper for submission.

Submission of Data - Data submitted in support of this application must be submitted in accordance with PR Notice 86-5.

SPECIFIC INSTRUCTIONS: Please read the instructions listed below before completing this application. First determine the type of registration action, listed in Block A, for which you are submitting this application. For applications submitted in connection with New Registration actions, Sections , III, and IV must be completed by the applicant. For applications submitted in connection with amended reregistration actions, resubmissions, notifications, reregistrations, etc., Sections I, II, and IV must be completed by the applicant. Block A - Check the appropriate action for which you are submitting this form.

SECTION I - This section must be completed, as applicable, for all registration actions.

- Company/Product Number Insert your Company Number, if one has been assigned by EPA. This number may have been assigned to you as a basic registrent, a distributor, or as an establishment. If your product is registered, insert the Product Number.
- EPA Product Manager If known, fill in the name and PM number of the EPA Product Manager, . . .
- Proposed Classification Specify the proposed classification of this product.
- Product Name "Enter the complete product name of this pesticide as it will appear on the label. The name must be specific to this product only. Duplication of names is not permitted among products of the same company. Do not include any brand name or company line designations.
- Name and Address of Applicant The name of the firm or person and address shown in your application is the person or firm to whom the registration will be issued. If you are acting in behalf of another party, you must submit authorization from that party to act for them in registration matters. An applicant not residing in the United States must have an authorized agent residing in the United States to act for them in all registration matters. The name and complete mailing address of such an agent must accompany this application.
- Expedited Review FIFRA section-3 (c)-3 (B) provides for expedited review of applications for registration, or amendments to existing registrations. that are similar or identical to other posticide products that are currently registered with the EPA. In order for your application to be eligible for :: expedited review, you must provide us with the EPA Registration Number and product name of the product you believe is similar to or identical to_ your product. The product must be similar of identical in both formulation and labeled uses.

mener of busiles coming. ECTION II - This section must be completed for all applications submitted to amend the registration only of a currently registered product tmendment); for a resubmission in response to an Agency letter, for notifications to the Agency, for the submission of final printed labeling, for registration and for any other action that pertains to a specific EPA-registered product. This section is not to be used for a new application for gistration. Carry MONTES

Subject of submission - Check the applicable block and provide the Agency letter date if appropriate. Provide a brief explanation of the purpose(s) for the submission, such as "the addition of a site, pest or crop (specify)"; "amend the Confidential Statement of Formula by..."; "reregistration submission, general label revision of use directions. Attach a separate page if edditional space is needed.

CTION: Ill (Parkeging and Container Information) "This Section must be completed for all applications submitted in connection with new កាច់ដៃជាជាជាប្រកួត... estration or applicable amendments.

Type of Packaging Check the appropriate block if your product will be packaged in the indicated packaging types.

Indicate the size of the individual packets and number per retail container.

Type of Retail Container - Indicate type of container in which product will be marketed. The Container of New Contents - Indicate the location of the net contents information for your product.

Location of Use Directions - Indicate the location of the use directions for your product.

Mapper in which jabel is affixed to product - Indicated the method product label is attached to retail container.

CTION IV (Contact Point) - This Section must be completed for all applications for Registration actions, i.e., new products registration, ibmission, "me-too," reregistration, etc.

Self-explanatory, ** EPA Use Only.

January 3, 1993

White - SPA File Copy (original)

Remoderation and infligence of the

EPA Form \$570-1 (Rev. \$-54) Fravence unitions are conclude.

SUPPLEMENTAL LABELING

READ AND FOLLOW THE ENTIRE LABEL FOR HONCHO® HERBICIDE AND THE "FOR AERIAL APPLICATION IN CALIFORNIA ONLY" SUPPLEMENTAL LABEL BEFORE PROCEEDING WITH THE USE DIRECTIONS CONTAINED IN THIS SUPPLEMENTAL LABELING.

"Label" as used in this supplemental labeling refers to the label booklet for Honcho herbicide, the "FOR AERIAL APPLICATION IN CALIFORNIA ONLY" supplemental label, and this supplement.

MOT REVIEWED donse with FR Notice B2-2, HECKEL CONTROL OF THE PARTY OF

MOT KAVIEWED In Accordance with PR Notice 82-E. Based on Draft Labeling Dated

EPA Reg. No. 524-445

[®]Honcho is a registered trademark of Monsanto Company.

FOR AERIAL APPLICATION IN FRESNO COUNTY, CA ONLY From February 15 through March 31 only.

For aerial application outside these dates, refer to the "FOR AERIAL APPLICATION IN CALIFORNIA ONLY" statewide supplemental label.

Keep out of reach of children.

WARNING! AVISO!

In case of an emergency involving this product, Call Collect, day or night, (314) 694-4000.

DIRECTIONS FOR USE

If is a violation of Federal law to use this product in any manner inconsistent with its labeling.

This label must be in the possession of the user at the time of the herbicide application.

See the "GENERAL INFORMATION" and "MIXING, ADDITIVES AND APPLICATION INSTRUCTIONS" sections of the label booklet for essential product information. See the "CROPPING SYSTEMS" section of the label booklet for specific recommendations on the use of this product.

Applicable Area

This supplement only applies to the area contained inside the following boundaries within Fresno County, California only.

North: Fresno County line South: Fresno County line East: State Highway 99 West: Fresno County line

General Information

Always read and 1:flow the label directions and precautionary statements for all products used in the aerial application.

Observe the following directions to minimize off-site movement during aerial application of Honcho® herbicide. Minimization of off-site movement is the responsibility of the grower, Pest Control Advisor, and aerial applicator.

Written Recommendations

A written recommendation MUST be submitted by or on behalf of the applicator to the Fresno County Agricultural

Commissioner 24 hours prior to the application. This written recommendation MUST state the proximity of surrounding crops, and that conditions of each manufacturer's applicable product label(s) and this label have been satisfied.

Aerial Applicator Training and Equipment

Aerial application of Honcho herbicide is limited to pilots who have successfully completed a Fresno County Agricultural Commissioner and California Department of Pesticide Regulation approved training program for aerial application of herbicides. All aircraff must be inspected, critiqued in flight, and certified at a Fresno County Agricultural Commissioner approved fly-in. Test and calibrate spray equipment at intervals sufficient to insure.

that proper rates of herbicides and adjuvants are being applied during commercial use. Applicator must document such calibrations and testing. Demonstration of performance at Fresno County Agricultural Commissioner approved 'flyins' constitutes such documentation, or other written records showing calculations and measurements of flight and spray parameters acceptable to the Fresno County Agricultural Commissioner.

Application at night - Do not apply this product by air earlier than 30 minutes prior to sunrise and/or later than 30 minutes after sunset without prior permission from the Fresno County Agricultural Commissioner.

To report known or suspected misuse of this product, call 1-800-332-3111.

For additional information on the proper aerial application of Honcho herbicide, call 916-784-1718

Read the "LIMIT OF WARRANTY AND LIABILITY" in the label for Honcho herbicide before using this product. Those terms apply to this supplemental labeling and if those terms are not acceptable, return the product unopened at once.

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12/29/97

21152V1-6

PAPERWORK REDUCTION ACT NOTICE and INSTRUCTIONS

PAPERWORK REDUCTION ACT NOTICE: Public reporting burden for this collection of information is estimated to everage 0.85 hour per esponse, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and eviewing the collection of information. Send comments regarding the burden estimate or any other espect of this collection of information, including uggestions for reducing this burden, to Chief, Information Policy Branch, (2136), U.S. Environmental Protection Agency, 401 M Street, SW. Vashington, DC 20460.

NSTRUCTIONS: This form is to be used for all applications for new registration, and use reregistration, amendment, resubmission, to applications or notifications, final printed labeling, reregistration, etc. In order to process an application for a new registration submitted on this form, the offowing material must accompany the application:

- 1. Certification with Respect to Citation of Data (EPA Form 8S70-29). [If not exampted by 40 CFR 152.81 (b) (4)];
- 2. Confidential Statement of Formula (EPA Form 8570-4); 🕟
- Formulator's Exemption Statement (EPA Form 8570-27);
- Five copies of dreft labeling;
- 5. Three copies of any data submitted;
- Authorization letter where applicable;
- Matrices where applicable.

submission of Labeling - Labeling should first be submitted in the form of draft labels with all epplications for new registration. Such draft labels may be n the form of typed label text on 8.5 x 11 inch paper for submission or a mockup of the proposed label. If prepared for mockup, it should be constructed in a way as to facilitate storage in an 8.5 x 11 inch file. Mockup labels significantly smaller than 8.5 x 11 inches should be mounted on 8.5 11 inch paper for submission,

Submission of Date - Date submitted in support of this application must be submitted in accordance with PR Notice 86-5.

SPECIFIC^SINSTRUCTIONS: Please read the instructions listed below before completing this application. First determine the type of registration action, listed in Block A, for which you are submitting this application. For applications submitted in connection with New Registration actions, Sections , III, and IV must be completed by the applicant. For applications submitted in connection with amended reregistration actions, resubmissions, notifications, reregistrations, etc., Sections I, II, and IV must be completed by the applicant.

Hock A - Check the appropriate action for which you are submitting this form,

SECTION I - This section must be completed, as applicable, for all registration actions.

- Company/Product Number Insert your Company Number, if one has been assigned by EPA. This number may have been assigned to you as a basic registrant, a distributor, or as an establishment. If your product is registered, insert the Product Number.
- EPA Product Manager ... If known, fill in the name and PM number of the EPA Product Manager.
- Proposed Classification Specify the proposed classification of this products &
- Product Name Enter the complete product name of this pesticide as it will appear on the label. The name must be specific to this product only. Duplication of names is not permitted among products of the same company. Do not include any brand name or company line designations.
- 5. Name and Address of Applicant- The name of the firm or person and address shown in your application is the person or firm to whom the registration will be issued. If you are acting in behalf of another party, you must submit authorization from that party to act for them in registration matters. An applicant not residing in the United States must have an authorized agent residing in the United States to act for them in all registration matters. The name and complete mailing address of such an agent must accompany this application.
- Expedited Review FIFRA section 3 (c) 3 (B) provides for expedited review of applications for registration, or amendments to existing registrations, that are similar or identical to other posticide products that are currently registered with the EPA. In order for your epolication to be eligible for expedited review; you must provide us with the EPA Registration Number and product name of the product you believe is similar to or identical to your product. The product must be similar of identical in both formulation and labeled uses.

en in Cabat Core in no SECTION 11 - This section must be completed for all applications submitted to amend the registration only of a currently registered product (Amendment), for a resubmission in response to an Agency letter, for notifications to the Agency, for the submission of final printed labeling, for reregistration and for any other action that pertains to a specific EPA-registered product. This section is not to be used for a new application for

- 1. Subject of submission Check the applicable block and provide the Agency letter date if appropriate. Provide a brief explanation of the purposets) for the submission, such as "the addition of a site, past or crop/specify)"; "amend the Confidential Statement of Formula by..."; "reregistration submission?; "general label revision of use directions."... Attech a separate page if additional space is needed.
- SECTION IIII (Puckaging and Container Information) This Section must be completed for all applications submitted in connection with new registration of applicable amendments. in actiological Regulation -
- 1. Type of Packaging Check the appropriate block if your product will be packaged in the indicated packaging types.
 - Indicate the size of the individual packets and number per retail container;——
- 2. Type of Metal Container Indicate type of container in which product will be marketed. : : : : : :
- 3. Location of Net-Contents Indicate the location of the net contents information for your product.
- 4. Ettatopot Retail Container . Specify the net contents of all retail containers for your product.
- 5. Location of Use Directions Indicate the location of the use directions for your product.
- 6. Meaner in whitch labe) is affixed to product Indicated the method product label is attached to retail container.

SECTION IV (Contact Point) - This Section must be completed for all applications for Registration actions, i.e., new products registration, resubmission, "mb, 'cd," recepistration, etc.

- 1-5. Self-explanatory."
- EPA Use Only. · · ·

January 8, 1998

Stephan J. Uratzen, Ph.D.

Sind it i

SUPPLEMENTAL LABELING

READ AND FOLLOW THE ENTIRE LABEL BOOKLET FOR ROUNDUP® HERBICIDE BEFORE PROCEEDING WITH THE USE DIRECTIONS CONTAINED IN THIS SUPPLEMENTAL LABELING.

"Label" as used in this supplemental labeling refers to the label booklet for ROUNDUP herbicide and this

supplement -



EPA Reg. No. 524-445

FOR AERIAL APPLICATION IN CALIFORNIA ONLY.

Keep out of reach of children.

WARNING! AVISO!

In case of an emergency involving this product, Call Collect, day or night, (314) 694-4000.

RQUNDUP® is a registered trademark of Monsanto Company.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in any manner inconsistent with its tabeling.

This tabel must be in the possession of the user at the time of the herbicide application.

See "GENERAL INFORMATION" and TMIXING, ADDITIVES and APPLICATION INSTRUCTIONS' sections of the Roundup label bookiet for essential product performance information.

See the "CROPPING SYSTEMS" of the label booklet for epecific recommendations on the use of this product.

EXTREME CARE MUST BE EXERCISED TO AVOID CONTACT OF SPRAY WITH FOLIAGE, GREEN STEAKS, OR FRUIT OF DESIRABLE CROPS, PLANTS, TREES, OR OTHER DESIRABLE VEGETATION SINCE SEVERE DAMAGE OR DESTRUCTION MAY RESULT.

Aerial applications of this product are allowed in the following situations:

- In fallow and reduced tillage systems prior to the emergence or transplanting of labeled crops:
- In cotton, prior to harvest. Refer to the ROUNDUP[®] booklet for specific pre harvest specification instructions.

Do not plant subsequent crops other than those issled in the label booklet for this product for 30 days following application.

When applied as recommended, under the conditions described, this product controls

annual and perendal woods Ested in the tabel booklet.

DO NOT EXCEED A MAXIMUM RATE OF 1 QUART PER ACRE OF THIS PRODUCT WHEN MAKING APPLICATIONS BY AIR.

AERIAL EQUIPMENT

Use the recommended rates of this product in 3 to 15 gallions of water per sore.

Do not apply to water, to erees where surface water is present or to interlidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters.

AVOID DRIFT - DO NOT APPLY WHEN WINDS ARE GUSTY OR UNDER ANY OTHER CONDITION WHICH WILL ALLOW DRIFT. DRIFT MAY CAUSE DAMAGE TO ANY VEGETATION CONTACTED TO WHICH TREATMENT IS NOT INTENDED. TO PREVENT BLURY, TO ADJACENT DESTRABLE VEGETATION, APPROPRIATE BUFFER ZONES MUST BE MAINTAINED.

Use the following guidelines when serial applications are made near crops or desirable perernial vegetation after bud break and before total lea drop, and/or near other desirable vegetation or annual crops.

- Do not apply within 100 feet of all desirable vegetation or crop(s).
- If wind up to 5 miles per hour is blowing toward desirable vegetation or crop(s), do not apply within 500 hundred feet of the desirable vegetation or crop(s).
- Winds blowing from 5 to 10 miles per hour toward: desirable vegetation may require buffer zones in excess of 500 feet.

 Do not apply when winds are in expess of 10 miles per hour or when inversion conditions exist.

Coarse sprays are tess likely to drift; therefore, do not use nozzies or nozzie configurations which disperse spray as fine spray droptets. Do not angle nozzies forward into the airstream and do not increase nozzie pressure.

Orth control additives may be used. When a drift control additive its used, read and carefully observe the custionary statements and all other information and all other information appearing on the additive label.

Ensure uniform application - to avoid streaked, uneven or overlapped application, use appropriste marking devices.

Thoroughly weak aircraft, expectally landing pear, after each day of epraying to remove residues of this product eccumulated during apraying or form spills, PROLONGED EXPOSURE OF THIS PRODUCT TO UNCOATED STEEL SURFACES MAY RESULT IN CORROSION AND POSSIBLE FAILURE OF THE PART. LANDING GEAR IS MOST SUSCEPTIBLE. The maintenance of an organic coaling (paint) which meets is exception.

Read the "LIMIT of WARRANTY AND LIABIL-ITY" in the label booklet for Roundup herbicide before using this product. Those terms apply to this supplemental labeling and if those terms are not acceptable, return the product unopened at once.

2100:S1-2-3/17/94

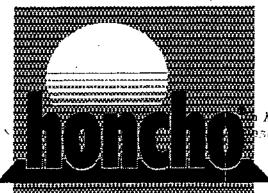
@MONSANTO COMPANY 1994

MONSANTO COMPANY SA AGRICULTURAL PRODUCTS ST. LOUIS, MO 63167

SUPPLEMENTAL LABELING

READ AND FOLLOW THE ENTIRE LABEL BOOKLET FOR HONCHO®
HERBICIDE BEFORE PROCEEDING WITH THE USE DIRECTIONS
CONTAINED IN THIS SUPPLEMENTAL LABELING.

"Label" as used in this supplemental labeling refers to the label booklet for Honcho herbicide and this supplement.



MOT REVIEWD

Accordance with PR Notice 82-2.

Ased on Deaft Labeling Dated

HERBICID

¿EPA Reg, No. 524-445

@Honcho is a registered trademark of Monsanto Company.

FOR AERIAL APPLICATION IN CALIFORNIA ONLY

Keep out of reach of children.

WARNING! AVISO!

In case of an emergency involving this product, Call Collect, day or night, 314-694-4000.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in any manner inconsistent with its labeling.

This label must be in the possession of the user at the time of the herbicide application.

See "GENERAL INFORMATION" and "MIXING, ADDITIVES and APPLICA-TION INSTRUCTIONS" sections of the Honcho label booklet for essential product performance information.

See the "CROPPING SYSTEMS" section of the label booklet for specific When application. recommendations on the use of this product.

EXTREME CARE MUST BE EXER-CISED TO AVOID CONTACT OF SPRAY WITH FOLIAGE, GREEN STEMS, OR FRUIT OF DESIRABLE CROPS, PLANTS, TREES OR OTHER DESIR-ABLE VEGETATION, SINCE SEVERE DAMAGE OR DESTRUCTION MAY RESULT. Aerial applications of this product are allowed in the following situations.

- In fallow and reduced tillage systems prior to the emergence or transplanting of labeled crops.
- In cotton, prior to harvest. Refer to the Honcho herbicide booklet for specific preharvest application instructions.

Do not plant subsequent crops other than those listed in the label booklet for this product 30 days following application.

When-applied as recommended under the conditions described, this product controls annual and perennial weeds listed in the label booklet.

DO NOT EXCEED A MAXIMUM RATE OF 1 QUART PER ACRE OF THIS PRODUCT WHEN MAKING APPLICATIONS BY AIR.

Aerial Equipment

Use the recommended rates of this product in 3 to 15 gallons of water per acre.

Do not apply to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters.

AVOID DRIFT—DO NOT APPLY WHEN WINDS ARE GUSTY OR UNDER ANY OTHER CONDITION WHICH WILL ALLOW DRIFT. DRIFT MAY CAUSE DAMAGE TO ANY VEGETATION CONTACTED TO WHICH TREATMENT IS NOT INTENDED. TO PREVENT INJURY TO ADJACENT DESIRABLE VEGETATION, APPROPRIATE BUFFER ZONES MUST BE MAINTAINED.

Use the following guidelines when aerial applications are made near crops or desirable perennial vegetation after bud break, and before total leaf drop, and/or near other desirable vegetation or annual crops.

- 1. Do not apply within 100 fect of all desirable vegetation or crop(s)_{2.22}
- If wind up to 5 miles per hour is blowing toward desirable vegetation or crop(s), do not apply with-

in 500 feet of the desirable vegetation or crop(s).

- Winds blowing from 5 to 10 miles per hour toward desirable vegetation may require bufter zones in excess of 500 feet.
- Do not apply when winds are in excess of 10 miles per hour or when inversion conditions exist.

Coarse sprays are less likely to drift; therefore, do not use nozzles or nozzle configurations which dispense spray as fine spray droplets. Do not angle nozzles forward into the airstream and do not increase nozzle pressure.

Drift control additives may be used. When a drift control additive is used, read and carefully observe the cautionary statements and all other information appearing on the additive label. Ensure uniform application—To avoid streaked, uneven or overlapped application, use appropriate marking devices.

Thoroughly wash aircraft, especially landing gear, after each day of spraying to remove residues of this product accumulated during spraying or from spills. PROLONGED EXPOSURE OF THIS PRODUCT TO UNCOATED STEEL SURFACES MAY RESULT IN CORROSION AND POSSIBLE FAILURE OF THE PART. LANDING GEAR IS MOST SUSCEPTIBLE. The maintenance of an organic coating (paint) which meets aerospace specification MIL-C-38413 may prevent corrosion.

Read the "LIMIT OF WARRANTY AND LIABILITY" in the label booklet for Honcho herbicide before using this product. Those terms apply to this supplemental labeling and if those terms are not acceptable, return the product unopened at once.

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Monsanto Company St. Louis; MO 63167 U.S.A.

21152V1-5

12/22/97

MONSANTO COMPANY 600 13th STREET, N.W.

WASHINGTON, D.C. 20005

TEC: (202) 783-2460 Fax: (202) 783-2468

SUITE 660

March 18, 1999

Hand Delivered

Office of Pesticide Programs
Document Processing Center (NOTIF)
U.S. Environmental Protection Agency
Room 266A, Crystal Mali #2
1921 Jefferson Davis Highway
Arlington, VA 22202

Attention: Mr. James A. Tompkins (7505C) Team Leader (25)

Subject:

Rascal® Herbicide (EPA Reg. No. 524-445)
Submission of Final Printed Supplemental Label for Applications to Roundup Ready® Soybeans

Dear Mr. Tompkins:

Monsanto is submitting for your files, three (3) copies of the final printed supplemental label (Print Plate No. 21151X2-7) for Rascal Herbicide for postemergence applications to soybeans with the Roundup Ready Gene. Rascal Herbicide is an alternate brand name on EPA Reg. No. 524-445 and this label is essentially identical to that approved by the Agency on January 13, 1999 for Roundup Original Herbicide. The following changes have been made:

- A paragraph listing the states in which aerial application of this product is allowed has been added.
- Second paragraph under "General Information" has been deleted and a new sentence has been added to the
 "Limited Warranty and Liability Section" at the end of the supplemental, "For over-the-top uses on Roundup Ready
 crop varieties, crop safety and weed control performance are not warranted by Monsanto when this product is
 used in conjunction with "brown bag" or "bin run" soybean seed saved from previous year's production and
 replanted."

The final printed distributor supplemental labels for Buccaneer Herbicide (524-445-55467), Mirage Herbicide (524-445-34704), Rattler Herbicide (524-445-5905) and Silhouette Herbicide (524-445-1381) are identical to this label and reflect the above listed changes.

If you have any questions regarding this submission, please feel free to contact me through Dr. Russell P. Schneider or directly at 314-694-9036.

Sincerely,

Debra Hinton

State Registration Specialist

Sebra Henton

cc: R. P. Schneider

Please read instructions on reverse before completing form.	Form Appr	oved. OMB No. 20	070-0060
United States	,	Registra	tion OPP Identifier Number
Environmental Protection	Agency	Amendr	. I
Washington, DC 20460		<u></u>	nent 257429
Application f	or Pesticide - Sec	tion I	
1. Company/Product Number	2. EPA Product Man	ager	3. Proposed Classification
524~445	Mr. James T	<u>ompkins</u>	None Restricted
4. Company/Product (Name) Rascal Herbicide	PM#	25	
5. Name and Address of Applicant (Include ZIP Code)	6. Expedited Rev	ri ew. In accorda	nce with FIFRA Section 3(c)(3)
Monsanto Company		is similar or ident	ical in composition and labeling
600 13th Street, N.W., Suite 660	to: EPA Reg. No.		
Washington, DC 20005	EFA neg. No		
Check if this is a new address	Product Name		
	Section - H		
Amendment - Explain below.	X Final printe	d labels in respons	e to
Resubmission in response to Agency letter dated	Agency let		
, resulting south in tesponse to Allency letter likely		App lication.	•
Notification - Explain below.	Other - Exp	łałn below.	
Submission of final printed supplemen	tal label		
	Section - III		
1. Material This Product Will Be Packaged In:	SCOTION IN		
	Vater Solubia Peckaging	2. Type of	Container
Yes. Yes	Yes		Mete l
No In	No		Plestic Glass
* Certification must	"Yes" No. per		Paper
be submitted Unit Packaging wgt. container	ackage wgt containe	or L	Other (Specify)
3. Location of Net Contents Information 4. Size(s) Retail C	ontainer I	5. Location of Lat	
Label Container	,	On Labe	l ling accompanying product
6. Manner in Which Label is Affixed to Product Lithograph Paper glue Stenciled	d Othe	r	
	Section - IV		
1. Contact Point (Complete items directly below for identification of		if necessery, to pr	rocess this application.)
Name			Telephone No. (Include Area Code
Dr. Russell P. Schneider	Director		(202) 783-2460
Certification	- · · · · · · · · · · · · · · · · · · ·	<u> </u>	6. Date Application
centry that the statements I have made on this form and all a	ittachmants thereto are tru		Received

3. Title

5. Date

Debra Hinton

2. Signatura

4. Typed Name

State Registration Specialist

PAPERWORK REDUCTION ACT NOTICE and INSTRUCTIONS

PAPERWORK REDUCTION ACT NOTICE: Public reporting burden for this collection of information is estimated to average 0.85 hour per response, including time for reviewing instructions, searching existing date sources, gathering and maintaining the date needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Chief, Information Policy Branch, (2136), U.S. Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460.

INSTRUCTIONS: This form is to be used for all applications for new registration, and use reregistration, amendment, resubmission, to applications for notifications, final printed labeling, reregistration, etc. In order to process an application for a new registration submitted on this form, the following material must accompany the application:

- 1. Certification with Respect to Citation of Data (EPA Form 8570-29). [If not exempted by 40 CFR 152.81 (b) (4)];
- 2. Confidential Statement of Formula (EPA Form 8570-4);
- 3. Formulator's Exemption Statement (EPA Form 8570-27);
- 4. Five copies of draft labeling;
- 5. Three copies of any data submitted;
- 6. Authorization letter where applicable;
- 7. Matrices where applicable.

Submission of Labeling - Labeling should first be submitted in the form of draft labels with all applications for new registration. Such draft labels may be in the form of typed label text on 8.5 x 11 inch paper for submission or a mockup of the proposed label. If prepared for mockup, it should be constructed in a way as to facilitate storage in an 8.5 x 11 inch file. Mockup labels significantly smaller than 8.5 x 11 inches should be mounted on 5 x 11 inch paper for submission.

Submission of Data - Data submitted in support of this application must be submitted in accordance with PR Notice 86-5.

SPECIFIC INSTRUCTIONS: Please read the instructions listed below before completing this application. First determine the type of registration action, listed in Block A, for which you are submitting this application. For applications submitted in connection with New Registration actions, Sections I, III, and IV must be completed by the applicant. For applications submitted in connection with amended reregistration actions, resubmissions, notifications, reregistrations, etc., Sections I, II, and IV must be completed by the applicant.

Block A - Check the appropriate action for which you are submitting this form.

SECTION I - This section must be completed, as applicable, for all registration actions.

- 1. Company/Product Number Insert your Company Number, if one has been assigned by EPA. This number may have been assigned to you as a basic registrant, a distributor, or as an establishment. If your product is registered, insert the Product Number.
- 2. EPA Product Manager If known, fill in the name and PM number of the EPA Product Manager.
- 3. Proposed Classification Specify the proposed classification of this product.
- 4. Product Name Enter the complete product name of this pesticide as it will appear on the label. The name must be specific to this product only. Duplication of names is not permitted among products of the same company. Do not include any brand name or company line designations.
- Name and Address of Applicant The name of the firm or person and address shown in your application is the person or firm to whom the programment of the firm or person and address shown in your application is the person or firm to whom the programment of the person or firm to whom the pers
- 6. Expedited Review FIFRA section 3 (c) 3 (8) provides for expedited review of applications for registration, or amendments to existing registrations, that are similar or identical to other posticide products that are currently registered with the EPA. In order for your application to be eligible for expedited review, you must provide us with the EPA Registration Number and product name of the product you believe is similar to or identical to your product. The product must be similar or identical in both formulation and labeled uses.

SECTION II - This section must be completed for all applications submitted to amend the registration only of a currently registered product (Amendment), for a resubmission in response to an Agency letter, for notifications to the Agency, for the submission of final printed labeling, for reregistration and for any other action that pertains to a specific EPA-registered product. This section is not to be used for a new application for registration.

1. Subject of submission - Check the applicable block and provide the Agency letter date it appropriate. Provide a brief explanation of the purpose(s) for the submission, such as "the addition of a site, pest or crop (specify);" amend the Confidential Statement of Formula by..."; "reregistration submission"; "general label revision of use directions." Attach a separate page if additional space is needed.

SECTION III (Packaging and Container Information) - This Section must be completed for all applications submitted in connection with new registration of applicable amendments.

- 1. Type of Packaging. Chack the appropriate block if your product will be packaged in the indicated packaging types. Indicately his size of the individual phockets and number per retail container.
- 2. Type of Retall Spitainer Indicate type of container in which product will be marketed.
- 3. Location of Net Contents Indicate the location of the net contents information for your products.
- 4. Size(s) of Refail Container Specify the net contants of all retail containers for your product.
- 5. Location of Use Cifections Indicate the location of the use directions for your product.
- 6. Manner in which label is affix \$\product Indicated the method product label is attached to retail container.

SECTION IV (Contact Point) - This Section must be completed for all applications for Registration actions; i.e., new products registration, resubmission, "mu-too," reregistration, etc.

- 1-5. Self-explenatory.
- 6. EPA Use Only.

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SUPPLEMENTAL LABELING

READ THE ENTIRE LABEL FOR RASCAL® HERBICIDE BEFORE PROCEEDING WITH THE USE DIRECTIONS CONTAINED IN THIS SUPPLEMENTAL LABELING.

"Label" as used in this supplemental labeling refers to the label booklet for Rascal herbicide, container labels and this supplement.



HERBICIDE

EPA Rea. No. 524-445

FOR POSTEMERGENCE APPLICATIONS TO SOYBEANS WITH THE ROUNDUP READY® GENE.

Keep out of reach of children.

WARNING!

In case of an emergency involving this product, Call Collect, day or night, (314) 694-4000.

Rascal Roundup and Roundup Ready are registered trademarks of Monsanto Company

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in any manner inconsistent with its labeling.

This label must be in the possession of the user at the time of application.

See "GENERAL INFORMATION" and "MIXING, ADOITIVES AND APPLICATION INSTRUCTIONS" sections of the label booklet for Rascal herbicide for essential product performance information:

General Information

MONSANTO COMPANY RECOMMENDS USE OF THIS PRODUCT FOR POST-EMERGENCE APPLICATION ONLY ON SOYBEAN VARIETIES DESIGNATED AS CONTAINING THE ROUNDUP READY® GENE.

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- Applying this product to soybean varieties which are not designated as Roundup Ready will result in severe crop injury and yield loss. Avoid contact with foliage, green stems, or fruit of crops, or any desirable plants which do not contain the Roundup Ready gene, since severe injury or destruction will result.
- The Roundup Ready designation indicates that the soybean contains a patented gene which provides tolerance to Rascal® herbicide. Information on Roundup Ready soybeans may be obtained from your seed supplier.

Application Instructions

 This product may be applied postemergence to Roundup Ready soybeans from the cracking stage throughout flowering. Allow a

- minimum of 14 days between application and harvest of soybeans. Maximum Allowable Yearly Rates
- Preplant: Maximum amount of this product which can be applied prior to crop emergence is 5 quarts/A.
- In-crop: Maximum combined total
 of single or multiple in-crop applications from cracking throughout
 the flowering stage is 3 quarts/A.
 The maximum rate for any single
 in-crop application is 2 quarts/A.
 The maximum combined total of
 this product which can be applied
 during flowering is 2 quarts/A.
- Preharvest: Maximum amount of this product that can be applied after loss of green color in soybean pods until 14 days before harvest is 1 quart/A.

The maximum rate for any single incrop application is 2 quarts/A. The maximum combined total of this product which can be applied during flowering is 2 quarts/A.

 Cropping Season: Combined total per year for all applications may not exceed 8 quarts/A.

When applied as directed, this product will control labeled annual grasses and broadleaf weeds in Roundup Ready soybeans. Many perennial grasses and broadleaf weeds will be controlled or suppressed with one or more applications of this product.

There are no rotational crop restrictions following applications of this product.

For ground applications: Use the recommended rates of this product in 5 to 20 gallons of spray solution per acre as a broadcast spray. Carefully select proper nozzle and spray pressure to a avoid spraying a fine mist. For best results with ground application equipment, use nozzles which provide a flat fan pattern. Check for even distribution of spray droplets.

For aerial applications: Use the recommended rates of this product in 3 to 15 gallons of spray solution per acre. Do not exceed 1 quart of this product per acre. DD NOT APPLY DURING LDW LEVEL INVERSION CONDITIONS, WHEN WINDS ARE GUSTY DR UNDER ANY OTHER CONDITIONS WHICH FAVOR DRIFT, DRIFT MAY CAUSE DAMAGE TO ANY VEGETATION CONTACTED TO WHICH TREATMENT IS NOT INTENDED. MAINTAIN APPROPRIATE BUFFER ZONES TO PREVENT INJURY TO ADJACENT DESIRABLE VEGETATION.

AERIAL APPLICATIONS ON ROUNDUP READY. SOYBEANS MAY BE MADE ONLY IN THE FOLLOWING STATES: ALABAMA, COLORADO, FLORIDA, GEORGIA, KANSAS, LDUISIANA, MISSISSIPPI, MISSOURI (BOOTHEEL ONLY), NEBRASKA, NDRTH CAROLINA, NORTH DAKOTA, OKLAHOMA, SOUTH CAROLINA, SOUTH DAKOTA, TENNESSEE, TEXAS, VIRGINIA AND WYOMING..

ANNUAL WEED RATE TABLES

The following rate recommendations will provide control of labeled grasses and broadleat weeds in conventional and no-till soybean production systems. Refer to the label booklet for rate rec-

ommendations for specific annual weeds.

Monsanto will not warrant crop safety or weed control when Roundup Ready soybeans are treated with herbicides not specified on this supplemental label. Because of the potential for; 1) crop injury, 2) poor weed control from antagonism, and/or 3) rotational crop restrictions, herbicides not specified on this supplemental label should not be used, whether applied preemergence or applied postemergence as a tank mixture with Rascal herbicide.

This product may be used up to 64 fluid ounces per acre in any single application for control of annual weeds, where heavy weed densities exist. The maximum combined total of this product which can be applied during flowering is 2 quarts/A.

NOTE: The following recommendations are based on a clean start at planting by using a burn down application or tillage to control existing weeds before crop emergence. In no-till and stale seedbed systems, a preplant burn-down treatment of 16-64 fluid ounces per acre of this product can be used to control existing weeds prior to crop emergence.

MIDWEST/ MID-ATLANTIC RECOMMENDATIONS

Narrow row or drilled soybeans: A single in-crop application of this product will provide effective control of labeled weeds. For best results, an initial application of 32 fluid ounces per acre (fl oz/A), on 4-8" weeds is recommended. Weeds will generally be 4-8" tall 3 to 5 weeks after planting. If the initial application is delayed and weeds are 8-18" tall, use 48 fl oz/A for best results.

Under adverse growing conditions, such as drought, hail, wind damage or a poor soybean stand that slows or delays canopy closure, a sequential application of this product at 24 to 32 fluid ounces per acre may be necessary to control late flushes of weeds. The combined total application in-crop must not exceed 96 fluid ounces per acre.

Wide row soybeans: An in-crop application of this product will provide effective control of the initial stand of labeled weeds. For best results, an initial application of 32 fluid ounces per acre (fl oz/A), on 4-B" weeds is recommended. Weeds will generally be 4-8" tall 3 to 5 weeks after planting. If new flushes of weeds occur, they can be controlled by sequential applications of this product.

Initial and Sequential (if needed)*
Applications

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Weed Height	Rate
(inches)	{fl 02/A
7-3	24
4-8	32
8-18	48

*Combined total application in-crop not to exceed 96 fluid ounces per acre.

Giant ragweed: Apply 32 fl oz/A when the weed is 8-12" tall to avoid the need for sequential application.

Black nightshade, Pennsylvania smartweed, velvetleaf, and waterhemp: Apply 32 fl oz/A to weeds 3-6" tall and 48 fl oz/A when weeds are up to 12" tail. For morningglory species, apply 32 fl oz/A when weeds are up to 4" tall, and 48 fl oz/A when weeds are up to 6" tall.

Some weeds, such as black nightshade, woolly cupgrass, shattercane, wild proso millet, burcumber, and giant ragweed, with multiple germination times may require a sequential application of this product. Suppressed or stunted weeds may also require sequential ap- " plications. Sequential applications should be made after some regrowth has occurred. Use a minimum of 16 fluid ounces of this product per acre for sequential applications. The combined total of all in-crop postemergence treatments must not exceed 96 fluid ounces per acre.

SOUTHEAST RECOMMENDATIONS VARIOW row, drilled, or wide-row soy-

beans: An in-crop application of this product will provide effective control of the initial stand of labeled weeds. For best results, an initial application of 32 fluid ounces per acre (II oz/A), on 3-6" weeds is recommended. Weeds will generally be 3-6" tall 2 to 3 weeks after planting.

Initial Treatment
Weed Height Rate
(inches) (fl oz/A)
3-6 32
6-12 43

Under adverse groving conditions such as drought, hail, wind damage or a poor soybean stand that stows or delays canopy closure, a saguential application of this product at 16 to 32 fluid ounces per acre may be necessary to control late flushes of weeds.

Sequential Application(if needed)*

Weed Height	Rate
(inches)	(fl.oz/A)
2-3	16
3-6	24
6-12	32

*Combined total application in-crop not to exceed 96 fluid ounces per acre.

Florida pustey, hemp sesbania and spurred anoda: Apply 32 fl oz/A to weeds 2-4" for the initial application. Apply 32 fl oz/A when these weeds are 3-6" tall if a sequential application is necessary.

Morningglory, black night-shade, ground-cherry, and Pennsylvania smartweed: Apply 24 fl oz/A on 1-3" weeds, 32 fl oz/A on 3-6" weeds, or 48 fl oz/A on 6-12" weeds for the initial application.

Some weeds, such as black nightshade, broadleaf signalgrass, Texas panicum, burcumber, and sicklepod, with multiple germination times may require a sequential application of this product. Suppressed or stunted weeds may also require sequential applications. Sequential applications should be made atter some regrowth has occurred. Use a minimum of 16 fluid ounces of this product per acre for sequential applications. The combined total of all in-crop postemergence treatments must not exceed 96 fluid ounces per acre.

DELTA/MID-SDUTH RECOMMENDATIONS

Narrow row, drilled, or wide row soybeans: An in-crop application of this product will provide effective control of the initial stand of labeled weeds. A sequential application will be required to control new flushes of weeds. For best results, an initial application of 32 fluid ounces per acre (fl oz/A), on 2-4" weeds is recommended. Weeds will generally be 2-4" tall 2 to 3 weeks after planting.

Initial Treatment Weed Height Rate (inches) (fl oz/A) 2-4 32 **5**-12 48 Sequential Application* Weed Height Rate (inches) (fl oz/A) 2-3 16 3-6 24 6-12 32

*Combined total application in-crop not to exceed 96 fluid ounces per acre.

Hemp sesbania and spurred anoda: Apply a sequential treatment of 32 ft oz/A on 3-6" weeds if necessary.

Some weeds, such as black night-shade, broadleaf signalgrass, Texas panicum, burcumber, and sicklepod, with multiple germination times may require a sequential application of this product. Suppressed or stunted weeds may also require sequential applications. Sequential applications should be made after some regrowth has occurred. Use a minimum of 16 fluid ounces of this product per acre for sequential applications. The combined total of all in-crop postemergence treatments must not exceed 96 fluid ounces per acre.

PERENNIAL WEEDS RATE RECOMMENDATIONS

A 32 to 64 fluid ounces per acre rate (single or multiple applications) of this product will control or suppress perennial weeds such as: bermudagrass, Canada thistle, common milkweed, field bindweed, hemp dogbane, horsenettle, marestail (horseweed), nutsedge, quackgrass, rhizome johnsongrass, redvine, trumpetcreeper, swamp smartweed, and wirestem muhly.

For best results, allow perennial weed species to achieve at least 6" of growth before spraying with Rascal herbicide. For additional information on perennial-weeds, see the "PERENNIAL WEED RATE TABLE" of the label booklet for Rascal herbicide. For some perennial species, repeat application may be required to eliminate crop competition throughout the growing season.

NOTE: Non-ionic Surfactant: Non-ionic surfactants which are labeled for use with postemergence herbicides may be used. When using additional surfactant, use 0.5 percent surfactant concentration (2 quarts per 100 gallons of spray solution) when using surfactants which contain at least 70 percent active ingredient or a 1 percent surfactant concentration (4 quarts per 100 gallons of spray solution) for those surfactants containing less than 70 percent active ingredient.

The addition of certain surfactants to this product may result in some crop response including leaf necrosis, leaf chlorosis or leaf speckling due to the surfactant added to the spray mixture. Read and carefully observe cautionary statements and other information appearing on the surfactant label.

Read the "Limit of Warranty and Liability" in the label booklet for Rascal herbicide before using. For over-the-top uses on Roundup Ready crop varieties, crop safety and weed control performance are not warranted when this product is used in conjunction with "brown bag" or "bin run" soybean seed saved from previous year's production and replanted. These terms apply to this supplemental labeling and if these terms are not acceptable, return the product unopened at once.

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This supplemental label will expire April 1, 2000.

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SUPPLEMENTAL LABELING

READ THE ENTIRE LABEL FOR RASCAL® HERBICIDE BEFORE PROCEEDING WITH THE USE DIRECTIONS CONTAINED IN THIS SUPPLEMENTAL LABELING.

"Label" as used in this supplemental labeling refers to the label booklet for Rascal herbicide, container labels and this supplement.



HERBICIDE

EPA Reg. No. 524-445

FOR POSTEMERGENCE APPLICATIONS TO SOYBEANS WITH THE ROUNDUP READY® GENE.

Keep out of reach of children.

WARNING!

In case of an emergency involving this product, Call Collect, day or night, (314) 694-4000.

Rascal Roundup and Roundup Ready are registered trademarks of Monsanto Company.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in any manner inconsistent with its labeling.

This label must be in the possession of the user at the time of application.

See "GENERAL INFORMATION" and "MIXING, ADDITIVES AND APPLICATION INSTRUCTIONS" sections of the label booklet for Rascal herbicide for essential product performance information.

General Information

MONSANTO COMPANY RECOMMENDS USE OF THIS PRODUCT FOR POST-EMERGENCE APPLICATION ONLY ON SOYBEAN VARIETIES DESIGNATED AS CONTAINING THE ROUNDUP READY® GENE

- Applying this product to soybean varieties which are not designated as Roundup Ready will result in severe crop injury and yield loss. Avoid contact with foliage, green stems, or fruit of crops, or any desirable plants which do not contain the Roundup Ready agene, since severe injury or destruction will result.
- The Roundup Ready designation indicates that the soybean contains a patented gene which provides tolerance to Rascal® herbicide. Information on Roundup Ready soybeans may be obtained from your seed supplier.

Application Instructions

This product may be applied postemergence to Roundup Ready soybeans from the cracking stage throughout flowering. Allow a

- minimum of 14 days between application and harvest of soybeans.
- Maximum Allowable Yearly Rates
 Preplant: Maximum amount of this
 product which can be applied prior
 to crop emergence is 5 quarts/A.
- In-crop: Maximum combined total
 of single or multiple in-crop applications from cracking throughout
 the flowering stage is 3 quarts/A.
 The maximum rate for any single
 in-crop application is 2 quarts/A.
 The maximum combined total of
 this product which can be applied
 during flowering is 2 quarts/A.
- Preharvest: Maximum amount of this product that can be applied after loss of green color in soybean pods until 14 days before harvest is 1 quart/A.

The maximum rate for any single incrop application is 2 quarts/A. The maximum combined total of this product which can be applied during flowering is 2 quarts/A.

 Cropping Season: Combined total per year for all applications may not exceed 8 quarts/A.

When applied as directed, this product will control labeled annual grasses and broadleaf weeds in Roundup Ready soybeans. Many perennial grasses and broadleaf weeds will be controlled or suppressed with one or more applications of this product.

There are no rotational crop restrictions following applications of this product.

For ground applications: Use the recommended rates of this product in 5 to 20 gallons of spray solution per acre as a broadcast spray. Carefully select proper nozzle and spray pressure to avoid spraying a fine mist. For best results with ground application equipment, use nozzles which provide a flat ifan pattern. Check for even distribution of spray droplets.

For aerial applications: Use the recommended rates of this product in 3 to 15 gallons of spray solution per acre. Do not exceed 1 quart of this product per acre. DD NOT APPLY DURING LOW LEVEL INVERSION CONDITIONS, WHEN WINDS ARE GUSTY OR UNDER ANY OTHER CONDITIONS WHICH FAVOR DRIFT. DRIFT MAY CAUSE DAMAGE TO ANY VEGETATION CONTACTED TO WHICH TREATMENT IS NOT INTENDED. MAINTAIN APPROPRIATE BUFFER ZONES TO PREVENT INJURY TO ADJACENT DESIRABLE VEGETATION.

AERIAL APPLICATIONS ON ROUNDUP READY SOYBEANS MAY BE MADE ONLY IN THE FOLLOWING STATES: ALABAMA, COLORADD, FLORIDA, GEDRGIA, KANSAS, LOUISIANA, MISSISSIPPI, MISSDURI (BOOTHEEL ONLY), NEBRASKA, NORTH CAROLINA, NORTH DAKOTA, OKLAHDMA, SOUTH CAROLINA, SOUTH DAKOTA, TENNESSEE, TEXAS, VIRGINIA AND WYOMING...

ANNUAL WEED RATE TABLES

The following rate recommendations will provide control of labeled grasses and broadleaf weeds in conventional and no-till soybean production systems. Refer to the label booklet for rate rec-

ommendations for specific annual weeds.

Monsanto will not warrant crop safety or weed control when Roundup Ready soybeans are treated with herbicides not specified on this supplemental label. Because of the potential for; 1) crop injury, 2) poor weed control from antagonism, and/or 3) rotational crop restrictions, herbicides not specified on this supplemental label should not be used, whether applied preemergence or applied postemergence as a tank mixture with Rascal herbicide.

This product may be used up to 64 fluid ounces per acre in any single application for control of annual weeds, where heavy weed densities exist. The maximum combined total of this product which can be applied during flowering is 2 quarts/A.

NOTE: The following recommendations are based on a clean start at planting by using a burn down application or tillage to control existing weeds before crop emergence. In no-till and stale seedbed systems, a preplant burn-down treatment of 16-64 fluid ounces per acre of this product can be used to control existing weeds prior to crop emergence.

MIDWEST/ MID-ATLANTIC RECOMMENDATIONS

Narrow row or drilled soybeans: A single in-crop application of this product will provide effective control of labeled weeds. For best results, an initial application of 32 fluid ounces per acre (floz/A), on 4-8" weeds is recommended. Weeds will generally be 4-8" tall 3 to 5 weeks after planting. If the initial application is delayed and weeds are 8-18" tall, use 48 floz/A for best results.

Under adverse growing conditions such as drought, hail, wind damage or a poor soybean stand that slows or delays canopy closure, a sequential application of this product at 24 to 32 fluid ounces per acre may be necessary to control late flushes of weeds. The combined total application in-crop must not exceed 96 fluid ounces per acre.

Wide row soybeans: An in-crop application of this product will provide effective control of the initial stand of labeled weeds. For best results, an initial application of 32 fluid ounces per acre (floz/A), on 4-8" weeds is recommended. Weeds will generally be 4-8" tall 3 to 5 weeks after planting. If new flushes of

weeds occur, they can be controlled by sequential applications of this product.

Initial and Sequential (if needed)*

	White rights		
Weed Height"	Rate		
(inches)	(fl oz/A)		
1-3	24		
4-8	32		
8-18	48		

*Combined total application in-crop not to exceed 96 fluid ounces per acre.

Giant ragweed: Apply 32 fl oz/A when the weed is 8-12" tall to avoid the need for sequential application.

Black nightshade, Pennsylvania smartweed, velvetleaf, and waterhemp: Apply 32 ft oz/A to weeds 3-6" tall and 48 ft oz/A when weeds are up to 12" tall. For morningglory species, apply 32 ft oz/A when weeds are up to 4" tall, and 48 ft oz/A when weeds are up to 6" tall.

Some weeds, such as black nightshade, woolly cupgrass, shattercane, wild proso millet, burcumber, and giant ragweed, with multiple germination times . may require a sequential application of this product. Suppressed or stunted weeds may also require sequential ap- -plications. Sequential applications should be made after some regrowth has occurred. Use a minimum of 16 fluid ounces of this product per acre for sequential applications. The combined total of all in-crop postemergence treatments must not exceed 96 fluid ounces per acre.

SOUTHEAST RECOMMENDATIONS
Narrow row, drilled, or wide-row soybeans: An in-crop application of this product will provide effective control of the initial stand of labeled weeds. For best results, an initial application of 32 fluid ounces per acre (fl oz/A), on 3-6" weeds is recommended. Weeds will generally be 3-6" tall 2 to 3 weeks after planting.

Initial Treatment
Weed Height Rate
(inches) (fl oz/A)
3-6 32
6-12 48

Under adverse growing conditions such as drought, hail, wind damage or a poor soybean stand that slows or delays canopy closure, a sequential application of this product at 16 to 32 fluid ounces per acre may be necessary to control late flushes of weeds.

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Sequential Application(if needed)*

Weed Height	Rate
(inches)	(fi oz/A)
2-3	16
3-6	24
6-12	32

*Combined total application in-crop not to exceed 96 fluid ounces per acre.

Florida pusley, hemp sesbania and spurred anoda: Apply 32 fl oz/A to weeds 2-4" for the initial application. Apply 32 fl oz/A when these weeds are 3-6" tall if a sequential application is necessary.

Morningglory, black night-shade, ground-cherry, and Pennsylvania smartweed: Apply 24 fi oz/A on 1-3" weeds, 32 fl oz/A on 3-6" weeds, or 48 fl oz/A on 6-12" weeds for the initial application.

Some weeds, such as black nightshade, broadleaf signalgrass. Texas panicum, burcumber, and sicklepod, with multiple germination times may require a sequential application of this product. Suppressed or stunted weeds may also require sequential applications. Sequential applications should be made after some regrowth has occurred. Use a minimum of 16 fluid ounces of this product per acre for sequential applications. The combined total of all in-crop postemergence treatments must not exceed 96 fluid ounces per acre.

DELTA/MID-SOUTH RECOMMENDATIONS

Narrow row, drilled, or wide row soybeans: An in-crop application of this product will provide effective control of the initial stand of labeled weeds. A sequential application will be required to control new flushes of weeds. For best results, an initial application of 32 fluid ounces per acre (fl oz/A), on 2-4" weeds is recommended. Weeds will generally be 2-4" tall 2 to 3 weeks after planting.

Initial Treatment Wego Height Rate (inches) (fl oz/A)

2-4 32 5/12 48

Séquential Application*
Weed Height Rate

<u>'inches)</u>	(f) oz//
2-3	16
3-6	24
6-12	32

*Combined total application in-crop not to exceed 96 fluid ounces per acre.

Hemp sesbania and spurred anoda: Apply a sequential treatment of 32 fl oz/A on 3-6" weeds if necessary.

Some weeds, such as black night-shade, broadleaf signalgrass, Texas panicum, burcumber, and sicklepod, with multiple germination times may require a sequential application of this product. Suppressed or stunted weeds may also require sequential applications. Sequential applications should be made after some regrowth has occurred. Use a minimum of 16 fluid ounces of this product per acre for sequential applications. The combined total of all in-crop postemergence treatments must not exceed 96 fluid ounces per acre.

PERENNIAL WEEDS RATE. RECOMMENDATIONS

A 32 to 64 fluid ounces per acre rate (single or multiple applications) of this product will control or suppress perennial weeds such as: bermudagrass, Canada thistle, common milkweed, field bindweed, hemp dogbane, horsenettle, marestail (horseweed), nutsedge, quackgrass, rhizome johnsongrass, redvine, trumpetcreeper, swamp smartweed, and wirestem muhly.

For best results, allow perennial weed species to achieve at least 6" of growth before spraying with Rascal herbicide. For additional information on perennial weeds, see the "PERENNIAL WEED RATE TABLE" of the label booklet for Rascal herbicide. For some perennial species, repeat application may be required to eliminate crop competition throughout the growing season.

NOTE: Non-ionic Surfactant: Non-ionic surfactants which are labeled for use with postemergence herbicides may be used. When using additional surfactant, use 0.5 percent surfactant concentration (2 quarts per 100 gallons of spray solution) when using surfactants which contain at least 70 percent active ingredient or a 1 percent surfactant concentration (4 quarts per 100 gallons of spray solution) for those surfactants containing less than 70 percent active ingredient.

The addition of certain surfactants to this product may result in some crop response including leaf necrosis, leaf chlorosis or leaf speckling due to the surfactant added to the spray mixture. Read and carefully observe cautionary statements and other information appearing on the surfactant label.

Read the "Limit of Warranty and Liabifity" in the label booklet for Rascal herbicide before using. For over-the-top uses on Roundup Ready crop varieties, crop safety and weed control performance are not warranted when this product is used in conjunction with "brown bag" or "bin run" soybean seed saved from previous year's production and replanted. These terms apply to this supplemental labeling and if these terms are not acceptable, return the product unopened at once.

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This supplemental label will expire April 1, 2000.

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SUPPLEMENTAL LABELING

READ THE ENTIRE LABEL FOR RASCAL® HERBICIDE BEFORE PROCEEDING WITH THE USE DIRECTIONS CONTAINED IN THIS SUPPLEMENTAL LABELING.

"Label" as used in this supplemental labeling refers to the label booklet for Rascal herbicide, container labels and this supplement.



EPA Reg. No. 524-445

FOR POSTEMERGENCE APPLICATIONS TO SOYBEANS WITH THE ROUNDUP READY® GENE.

Keep out of reach of children.

WARNING!

In case of an emergency involving this product, Call Collect, day or night, (314) 694-4000.

Rascal Roundup and Roundup Ready are registered trademarks of Monsanto Company.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in any manner inconsistent with its labeling.

This label must be in the possession of the user at the time of application.

See "GENERAL INFORMATION" and "MIXING, ADDITIVES AND APPLICATION INSTRUCTIONS" sections of the label booklet for Rascal herbicide for essential product performance information:

General Information

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MONSANTO COMPANY RECOMMENDS USE OF THIS PRODUCT FOR POST-EMERGENCE APPLICATION ONLY ON SOYBEAN VARIETIES DESIGNATED AS CONTAINING THE ROUNDUP READY® GENE. Applying this product to soybean varieties which are not designated as Roundup Ready will result in severe crop injury and yield loss. Avoid contact with foliage, green stems, or fruit of crops, or any desirable plants which do not contain the Roundup Ready gene, since severe injury or destruction will result.

 The Roundup Ready designation indicates that the soybean contains a patented gene which provides tolerance to Rascal® herbicide. Information on Roundup Ready soybeans may be obtained from your seed supplier.

Application Instructions

This product may be applied postemergence to Roundup Ready soybeans from the cracking stage throughout flowering. Allow a

minimum of 14 days between application and harvest of soybeans.

Maximum Allowable Yearly Rates

- Preplant: Maximum amount of this product which can be applied prior to crop emergence is 5 quarts/A.
- In-crop: Maximum combined total
 of single or multiple in-crop applications from cracking throughout
 the flowering stage is 3 quarts/A.
 The maximum rate for any single
 in-crop application is 2 quarts/A.
 The maximum combined total of
 this product which can be applied
 during flowering is 2 quarts/A.
- Preharvest: Maximum amount of this product that can be applied after loss of green color in soybean pods until 14 days before harvest is 1 quart/A.

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The maximum rate for any single incrop application is 2 quarts/A. The maximum combined total of this product which can be applied during flowering is 2 quarts/A.

 Cropping Season: Combined total per year for all applications may not exceed 8 quarts/A.

When applied as directed, this product will control labeled annual grasses and broadleaf weeds in Roundup Ready soybeans. Many perennial grasses and broadleaf weeds will be controlled or suppressed with one or more applications of this product.

There are no rotational crop restrictions following applications of this product.

For ground applications: Use the recommended rates of this product in 5 to 20 gallons of spray solution per acre as a broadcast spray. Carefully select proper nozzle and spray pressure to avoid spraying a fine mist. For best results with ground application equipment, use nozzles which provide a flat a fan pattern. Check for even distribution of spray droplets.

For aerial applications: Use the recommended rates of this product in 3 to 15 gallons of spray solution per acre. Do not exceed 1 quart of this product per acre. DO NOT APPLY DURING LOW LEVEL INVERSION CONDITIONS, WHEN WINDS ARE GUSTY OR UNDER ANY OTHER CONDITIONS WHICH FAVOR DRIFT. DRIFT MAY CAUSE DAMAGE TO ANY VEGETATION CONTACTED TO WHICH TREATMENT IS NOT INTENDED. MAINTAIN APPROPRIATE BUFFER ZONES TO PREVENT INJURY TO ADJACENT DESIRABLE VEGETATION.

AERIAL APPLICATIONS DN ROUNDUP READY SOYBEANS MAY BE MADE ONLY IN THE FOLLOWING STATES: ALABAMA, COLORADO, FLORIDA, GEORGIA, KANSAS, LOUISIANA, MISSISSIPPI, MISSOURI (BOOTHEEL ONLY), NEBRASKA, NORTH CAROLINA, NORTH DAKOTA, OKLAHOMA, SOUTH CAROLINA, SOUTH DAKOTA, TENNESSEE, TEXAS, VIRGINIA AND WYOMING...

ANNUAL WEED RATE TABLES

The following rate recommendations will provide control of labeled grasses and broadleaf weeds in conventional and no-till soybean production systems. Refer to the label booklet for rate rec-

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ommendations for specific annual weeds

Monsanto will not warrant crop safety or weed control when Roundup Ready soybeans are treated with herbicides not specified on this supplemental label. Because of the potential for; 1) crop injury, 2) poor weed control from antagonism, and/or 3) rotational crop restrictions, herbicides not specified on this supplemental label should not be used, whether applied preemergence or applied postemergence as a tank mixture with Rascal herbicide.

This product may be used up to 64 fluid ounces per acre in any single application for control of annual weeds, where heavy weed densities exist. The maximum combined total of this product which can be applied during flowering is 2 quarts/A.

NOTE: The following recommendations are based on a clean start at planting by using a burn down application or tillage to control existing weeds before crop emergence. In no-till and stale seedbed systems, a preplant burn-down treatment of 16-64 fluid ounces per acre of this product can be used to control existing weeds prior to crop emergence.

MIDWEST/ MID-ATLANTIC RECOMMENDATIONS

Narrow row or drilled soybeans: A single in-crop application of this product will provide effective control of labeled weeds. For best results, an initial application of 32 fluid ounces per acre (floz/A), on 4-8" weeds is recommended. Weeds will generally be 4-8" tall 3 to 5 weeks after planting. If the initial application is delayed and weeds are 8-18" tall, use 48 fl oz/A for best results.

Under adverse growing conditions such as drought, hail, wind damage or a poor soybean stand that slows or delays canopy closure, a sequential application of this product at 24 to 32 fluid ounces per acre may be necessary to control late flushes of weeds. The combined total application in-crop must not exceed 96 fluid ounces per acre.

Wide row soybeans: An in-crop application of this product will provide effective control of the initial stand of labeled weeds. For best results, an initial application of 32 fluid ounces per acre (fl oz/A), on 4-8" weeds is recommended. Weeds will generally be 4-8" tall 3 to 5 weeks after planting. If new flushes of .

weeds occur, they can be controlled by sequential applications of this product.

Initial and Sequential (if needed)*
Applications

Weed Height	Rate
(inches)	(fl oz/A)
1-3	24
4-8	32
8-18	48

*Combined total application in-crop not to exceed 96 fluid ounces per acre.

Giant ragweed: Apply 32 ff oz/A when the weed is 8-12" tall to avoid the need for sequential application.

Black nightshade, Pennsylvania smartweed, velvetleaf, and waterhemp: Apply 32 fl oz/A to weeds 3-6" tall and 48 fl oz/A when weeds are up to 12" tali. For morningglory species, apply 32 fl oz/A when weeds are up to 4" tall, and 48 fl oz/A when weeds are up to 6" tall.

Some weeds, such as black nightshade, woolly cupgrass, shattercane, wild proso millet, burcumber, and giant ragweed, with multiple germination times? may require a sequential application of this product. Suppressed or stunted weeds may also require sequential ap-" plications. Sequential applications should be made after some regrowth has occurred. Use a minimum of 16 fluid ounces of this product per acre for sequential applications. The combined total of all in-crop postemergence treatments must not exceed 96 fluid ounces per acre.

SOUTHEAST RECOMMENDATIONS 'Narrow row, drifled, or wide-row soybeans: An in-crop application of this product will provide effective control of the initial stand of labeled weeds. For best results, an initial application of 32 fluid ounces per acre (fl oz/A), on 3-6" weeds is recommended. Weeds will generally be 3-6" tall 2 to 3 weeks after planting.

Initial Treatment
Weed Height Rate
(inches) (ff owa)
3-6 32
6-12 48

Under adverse growing conditions such as drought, hail, wind damage or a poor soybean stand that slows or delays canopy closure, a sequential application of this product at 16 to 32 fluid ounces per acre may be keessary to control late flushes of weeds.

Sequential Application(if needed)*

Weed Height	Rate
(inches)	(<u>fl</u> oz/A)
2-3	16
3-6	24
6-12	32

*Combined total application in-crop not to exceed 96 fluid ounces per acre.

Florida pusley, hemp sesbania and spurred anoda: Apply 32 fl oz/A to weeds 2-4" for the initial application. Apply 32 fl oz/A when these weeds are 3-6" tall if a sequential application is necessary.

Morningglory, black night-shade, ground-cherry, and Pennsylvania smartweed: Apply 24 fl oz/A on 1-3" weeds, 32 fl oz/A on 3-6" weeds, or 48 fl oz/A on 6-12" weeds for the initial application.

Some weeds, such as black nightshade, broadleaf signalgrass, Texas panicum, burcumber, and sicklepod, with multiple germination times may require a sequential application of this product. Suppressed or stunted weeds may also require sequential applications. Sequential applications should be made after some regrowth has occurred. Use a minimum of 16 fluid ounces of this product per acre for sequential applications. The combined total of all in-crop postemergence treatments must not exceed 96 fluid ounces per acre.

DELTA/MID-SDUTH RECOMMENDATIONS

Narrow row, drilled, or wide row soybeans: An in-crop application of this product will provide effective control of the initial stand of labeled weeds. A sequential application will be required to control new flushes of weeds. For best results an initial application of 32 fluid ounces per acre (fl oz/A), on 2-4" weeds is recommended. Weeds will generally be 2-4" tall 2 to 3 weeks after planting.

....

Initial Treatment Weed Height Rate <u>(inc</u>hes) (fl oz/A) 2-4 32 **5**/12 48 Sequential Application* Weed Height Rate <u>(inches)</u> (floz/A)2-3 16 3-6 24 6-12 32

*Combined total application in-crop not to exceed 96 fluid ounces per acre.

Hemp sesbania and spurred anoda: Apply a sequential treatment of 32 floz/A on 3-6" weeds if necessary.

Some weeds, such as black night-shade, broadleaf signalgrass, Texas panicum, burcumber, and sicklepod, with multiple germination times may require a sequential application of this product. Suppressed or stunted weeds may also require sequential applications. Sequential applications. Sequential applications should be made after some regrowth has occurred. Use a minimum of 16 fluid ounces of this product per acre for sequential applications. The combined total of all in-crop postemergence treatments must not exceed 96 fluid ounces per acre.

PERENNIAL WEEDS RATE RECOMMENDATIONS

A 32 to 64 fluid ounces per acre rate (single or multiple applications) of this product will control or suppress perennial weeds such as: bermudagrass, Canada thistle, common milkweed, field bindweed, hemp dogbane, horsenettle, marestail (horseweed), nutsedge, quackgrass, rhizome johnsongrass, redvine, trumpetcreeper, swamp smartweed, and wirestem muhly.

For best results, allow perennial weed species to achieve at least 6" of growth before spraying with Rascal herbicide. For additional information on perennial weeds, see the "PERENNIAL WEED RATE TABLE" of the label booklet for Rascal herbicide. For some perennial species, repeat application may be required to eliminate crop competition throughout the growing season.

NOTE: Non-ionic Surfactant: Non-ionic surfactants which are labeled for use with postemergence herbicides may be used. When using additional surfactant, use 0.5 percent surfactant concentration (2 quarts per 100 gallons of spray solution) when using surtactants which contain at least 70 percent active ingredient or a 1 percent surfactant concentration (4 quarts per 100 gallons of spray solution) for those surfactants containing less than 70 percent active ingredient.

The addition of certain surfactants to this product may result in some crop response including leaf necrosis, leaf chlorosis or leaf speckling due to the surfactant added to the spray mixture. Read and carefully observe cautionary statements and other information appearing on the surfactant label.

Read the "Limit of Warranty and Liability" in the label booklet for Rascal herbicide before using. For over-the-top uses on Roundup Ready crop varieties, crop safety and weed control performance are not warranted when this product is used in conjunction with "brown bag" or "bin run" soybean seed saved from previous year's production and replanted. These terms apply to this supplemental labeling and if these terms are not acceptable, return the product unopened at once.

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This supplemental fabel will expire April 1, 2000.

21151X2-7 / 1/13/99

Monsanto

Monsanto Company Suite 1100 700 14th Street, N.W. Washington, D.C. 20005

January 14, 1998

Hand Delivered

Office of Pesticide Programs
Document Processing Center (Final Printed Labeling)
U.S. Environmental Protection Agency
Room 266A, Crystal Mall #2
1921 Jefferson Davis Highway
Arlington, VA 22202

Attention:

Mr. James A. Tompkins (7505C)

Team Leader (25)

Subject:

Rascal Herbicide ((EPA Reg. No. 524-445)

Final Printed Labeling

Responsive to Notification dated 17-Oct-97

Dear Mr. Tompkins:

In my letter dated 17-Oct-97, Monsanto notified EPA of a new brand name "Rascal Herbicide" under the 524-445 registration number and provided draft labeling text.

Monsanto herein submits five (5) copies of final printed labeling of the Rascal Herbicide booklet label. It is identified by Print Plate number 21151V1-1/53 and is dated 1997-1.

The printed label is identical to the draft text submitted in October with the following minor changes:

- Remove three restrictions on uses in California based on Cal EPA comments during their review of the text. These are:
 - 1. Page 52 of draft text and page 47 of booklet: Remove statement against control of Russian Olive.
 - 2. Page 84 of draft text and page 75 of booklet: Remove statement that Escort-tank mixtures are not registered in California.

- 3. Page 104 of draft text and page 92 of booklet: Remove statement that Partner is not registered in California.
- Page 106 of the booklet: alphabetize the crop "plantains", retaining the designation of a 28-day preharvest interval.
- Page 94 of the booklet: add the phrase "grain sorghum (milo)" to the first paragraph under the "Preharvest Applications" section to be consistent with the incorporation on Page 95 of use instructions for preharvest treatments on sorghum from a supplemental label.
- Page 107 of the booklet: update trademark references.

If you have any questions on this matter please feel free to contact me through Dr. Russell P. Schneider or directly at 314-694-1582.

Sincerely,

Stephen J. Wratten

Manager, Registrations

cc: R. P. Schneider

A. Hedgecock

D. Hinton

M. Brown

T. Staniforth

Please read instructions or	reverse before completing form.	Form A	pproved. OMB No. 2070	0-0060. Approval expires 05-31-98	
	United States	•	Registrati	on OPP Identifier Number	
SEPA	Environmental Protection Washington, DC 204	•	Amendme Other	ent 255273	
	Application	on for Pesticide - S	ection I		
1. Company/Product Numb	524-445	2. EPA Product A Mr. James	-	3. Proposed Classification ,	
4. Company/Product (Nam Rascal (o) ® Herbicide	РМ# 25	PM# 25		
5. Name and Address of Applicant (Include ZIP Code) Monsanto Company 700 14th Street, N.W., Suite 1100 Washington, DC 20005		6. Expedited Review. In accordance with FIFRA Section 3(c)(3) (b)(i), my product is similar or identical in composition and labeling to: EPA Reg. No			
Check if th	nis is a new address	Product Nam	e		
		Section - II			
i 🖳	Amendment - Explain below. X Final printed labels in response to Agency letter dated Me Too" Application.				
Notification - Explai	n below.	Other -	Explain below.	7	
Explanation: Use additional page(s) if necessary. (For section I and Section II.) Responsive to notification dated 17-Oct-97. Final printed label for Rascal Herbicide					
		Section - III			
1. Material This Product W	fill Be Packaged In:				
Child-Resistant Packaging	Unit Packaging	Water Soluble Packaging	2. Type of Co	intainer	
Yes*	Yes	Yes	· · · · · · · · · · · · · · · · · · ·	Metal Plastic	
∐ No	If "Yes" No. per	If "Yes" No. p		Slass Paper	
* Certification must he submitted	Unit Packaging wgt, container	Peckaga wgt conte	~ — —	Other (Specify)	
J. Location of Net Content	s Information 4. Size(s) Re Container	tail Container	5. Location of Label On Label On Labeling	Directions g accompanying product	
6. Manner in Which Label i	6. Manner in Which Label is Affixed to Product Lithograph Paper glued Stenciled				
in Transport (1997) Transport	100 Mars 100 mg	Section - IV	T 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		
1. Contact Point Complet	te items directly below for identification	on of individual to be contact	ed, if necessary, to proc	ess this application.)	
Name Dr∮Rüssell	P. Schneider	Tide Agricultural Director	Regulation T	Siephone 92 (Include Area Code) (202) 783-2460	
Certification I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.				late. Ruceived	
2. Signature	Minte	a. กินะ Manager, Regis	trations	in the second se	
4. Typed Name Steph	en J. Wratten, Ph.D.	5. Date January 14	, 1998	248	

PAPERWORK REDUCTION ACT NOTICE and INSTRUCTIONS

PAPERWORK REDUCTION ACT NOTICE: Public reporting burden for this collection of information is estimated to average 0.85 hour per sponse, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and newing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including ggestions for reducing this burden, to Chief, Information Policy Branch, (2136), U.S. Environmental Protection Agency, 401 M Street, SW, ashington, DC 20460.

ISTRUCTIONS: This form is to be used for all applications for new registration, end use reregistration, amendment, resubmission, to applications required respectation, and printed labeling, reregistration, atc. In order to process an application for a new registration submitted on this form, the flowing material must accompany the application:

- 1. Certification with Respect to Citation of Data (EPA Form 8570-29). [If not exempted by 40 CFR 152.81 (b) (4)];
- 2. Confidential Statement of Formula (EPA Form 8570-4);
- 3. Formulator's Exemption Statement (EPA Form 8570-27);
- 4. Five copies of draft labeling;
- Three copies of any data submitted;
- 6. Authorization letter where applicable;
- 7. Matrices where applicable.

ibmission of Labeling - Labeling should first be submitted in the form of draft labels with all applications for new registration. Such draft labels may be the form of typed label text on 8.5 x 11 inch paper for submission or a mockup of the proposed label. If prepared for mockup, it should be instructed in a way as to facilitate storage in an 8.5 x 11 inch file. Mockup labels significantly smaller than 8.5 x 11 inches should be mounted on 8.5 to 11 inch paper for submission.

abmission of Data - Data submitted in support of this application must be submitted in accordance with PR Notice 86-5.

PECIFIC INSTRUCTIONS: Please read the instructions listed below before completing this application. First determine the type of registration stion, listed in Block A, for which you are submitting this application. For applications submitted in connection with New Registration actions, Sections III, and IV must be completed by the applicant. For applications submitted in connection with amended reregistration actions, resubmissions, publications, reregistrations, etc., Sections I, II, and IV must be completed by the applicant. lock A - Chack the appropriate action for which you are submitting this form.

ECTION 1 - This section must be completed, as applicable, for all registration actions.

- Company/Product Number Insert your Company Number, if one has been assigned by EPA. This number may have been assigned to you as a basic registrant, a distributor, or as an establishment. If your product is registered, insert the Product Number.
- EPA Product Manager,- If known, fill in the name and PM number of the EPA Product Manager.
- : Proposed Classification Specify the proposed classification of this product.
- Product Name Enter the complete product name of this pesticide as it will appear on the label. The name must be specific to this product only. Duplication of names is not permitted among products of the same company. Do not include any brand name or company line designations.
- Name and Address of Applicant The name of the firm or person and eddress shown in your application is the person or firm to whom the registration will be issued. If you are acting in behalf of another party, you must submit authorization from that party to act for them in registration matters. An applicant not residing in the United States must have an authorized agent residing in the United States to act for them in all registration matters. The name and complete mailing address of such an agent must accompany this application.
- Expedited Review FIFRA section 3 (c) 3 (B) provides for expedited review of applications for registration, or amendments to existing registrations, that are similar or identical to other pasticide products that are currently registered with the EPA. In order for your application to be eligible for expedited review, you must provide us with the EPA Registration Number and product name of the product you believe is similar to or identical to your product. The product must be similar or identical in both formulation and labeled uses.

SECTION II This section must be completed for all applications submitted to amend the registration only of a currently registered product Amendment), for a regularisation in response to an Agency letter, for notifications to the Agency, for the submission of final printed labeling, for aregistration and for any other action that partiains to a specific EPA-registered product. This section is not to be used for a new application for agistration.

Subject of submission. Check the applicable block and provide the Agency letter date if appropriate. Provide a brief explanation of the purpose(s) for the submission, such as "the addition of a site, pest or crop (specify)"; "amend the Confidential Statement of Formula by..."; "reregistration submission"; "[centeral label revision of use directions." Attach a separate page if additional space is needed.

SECTION III (Packaging and Container Information) - This Section must be completed for all applications submitted in connection with new registration or applicable unendments.

- Type of Packaging Check the epotopriate block if your product will be packaged in the indicated packaging types.
 Indicate the size of the individual packets and number per retail container.
- 2. Type of Retail Container Indicate type of container in which product will be marketed.
- 3. Location of lifet contents Indicate the location of the net contents information for your product.
- 4. Size(s) of Retail Container Specify the net contents of all retail containers for your product.

- 5. Location of Use Directions Inclusion in a location of the use directions for your product.
- 6. Manner in which Inbel is affixed to product Indicated the method product label is attached to retail container.

SECTION IV (Control Point) - This Section must be completed for all applications for Registration actions, i.e., new products registration, resubmission, "me-tro," reregistration, etc.

- 1-5. Self-explanatory,
- 6. EPA Use Only.

Z4



BOT REVIEWED
In Accordance with PR Notice 82-2.
Based on Braft Labeling Dated

Complete Directions for Use

EPA Reg. No. 524-445

AVOID CONTACT WITH FOLIAGE, GREEN STEMS, EXPOSED NON-WOODY ROOTS OR FRUIT OF CROPS, DESIRABLE PLANTS AND TREES, SINCE SEVERE INJURY OR DESTRUCTION MAY RESULT.

1997-1

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21151V1-1/53



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1997-1

21151V1-1/53

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Read the entire label before using this product.

Use only according to label instructions.

Read "LIMIT OF WARRANTY AND LIABILITY" before buying or using, if terms are not acceptable, return at once unopened.

REFORMULATION IS PROHIBITED, SEE INDIVIDUAL CONTAINER LABEL FOR REPACKAGING LIMITATIONS.

LIMIT OF WARRANTY AND LIABILITY

This Company warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes set forth in the Complete Directions for Use label booklet ("Directions") when used in accordance with those Directions under the conditions described therein. NO OTHER EXPRESS WARRANTY OR IMPLIED WARRANTY OF FITNESS FOR PARTICULAR PURPOSE OR MERCHANTABILITY IS MADE. This warranty is also subject to the conditions and limitations stated herein.

Buyer and all users shall promptly notify this Company of any claims whether based in contract, negligence, strict liability, other tort or otherwise.

Buyer and all users are responsible for all loss or damage from use or handling which results from conditions beyond the control of this Company, including, but not limited to, incompatibility with products other than those set forth in the Directions, application to or contact with desirable vegetation, unusual weather, weather conditions which are outside the range considered normal at the application site and for the time period when the product is applied, as well as weather conditions which are outside the application ranges set forth in the Directions, application in any manner not explicitly set forth in the Directions, moisture conditions outside the moisture range specified in the Directions or the presence of graducts other than those set forth in the Directions in or on the soil, crop or treated vegetation.

THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE LIMIT OF THE LIABILITY OF THIS COMPANY OR ANY OTHER SELLER FOR ANY AND ALL LOSSES, INJURIES OR DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT UNCLUDING CLAIMS BASED IN CONTRACT, NEGLIGENCE, STRICT LIABILITY, OTHER TORT OR OTHERWISE) SHALL BE THE PURCHASE PRICE PAID BY THE USER OR BUYER FOR THE QUANTITY OF THIS PRODUCT HAVOLVED, OR, AT THE ELECTION OF THIS COMPANY OR ANY OTHER SELLER, THE REPLACEMENT OF SUCH QUANTITY, OR, IF NOT ACQUIRED BY PURCHASE, REPLACEMENT OF SUCH QUANTITY IN NO EVENT SHALL THIS COMPANY OR ANY OTHER SELLER BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES.

Buyer and all users are deemed to have accepted the terms of this LIMIT OF WARRANTY AND LIABILITY which may not be varied by any verbal or written agreement.

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PRECAUTIONARY STATEMENTS	
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PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

Keep out of reach of children.

WARNING! AVISO!

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (Il you do not understand the label, find someone to explain it to you in detail.)

CAUSES SUBSTANTIAL BUT TEMPORARY EYE INJURY.

HARMFUL IF SWALLOWED OR INHALED.

Do not get in eyes or on clothing.

Avoid breathing vapor or spray mist,

FIRST AID: IF IN EYES, immediately hold eyelids open and flush with plenty of water for at least 15 minutes. Get medical attention.

IF INHALED, remove individual to fresh air. If not breathing give artificial respiration, preferably mouth-to-mouth. Get medical attention.

IF SWALLOWED, this product will cause gastrointestinal tract irritation. Immediately dilute by swallowing water or milk. Get medical attention. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON.

Personal Protective Equipment (PPE)

Applicators and other handlers must wear: long-sleeved shirt and long pants, shoes plus socks, and protective eyewear. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them, follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

When bandlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d) (4-6)]. the handler PPE requirements may be reduced or modified as specified in the WPS.

User Safety Recommendations:

Users should:

- · Wash bands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- · Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

In case of an emergency involving this product. Call Collect, day or night, (314) 694-4000.

Environmental Hazards

Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters.

Physical or Chemical Hazards

Spray solutions of this product should be mixed, stored and applied using only stainless steel, aluminum, fiberglass, plastic or plasticlined steel containers.

DO NOT MIX, STORE OR APPLY THIS PRODUCT OR SPRAY SOLUTIONS OF THIS PRODUCT IN GALYANIZED STEEL OR UNLINED STEEL (EXCEPT STAINLESS STEEL) CONTAINERS OR SPRAY TANKS. This product or spray solutions of this product react with such containers and tanks to produce hydrogen gas which may form a highly combustible gas mixture. This gas mixture could flash or explode, causing serious personal injury, if ignited by open flame, spark, welder's torch, lighted cigarette or other ignition source.

ACTIVE INGREDIENT:

*Glyphosate, N-(phos	sphonomethyl)glycine, in the form of it	ts
	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
		100.0%

*Contains 480 grams per litre or 4 pounds per U.S. gallon of the active ingredient glyphosate, in the form of its isopropylamine salt. Equivalent to 356 grams per litre or 3 pounds per U.S. galton of the acid, glyphosate.

This product is protected by U.S. Patent No. 4,405,531. Other patents pending. No license granted under any non-U.S. patent(s).

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in any manner inconsistent with its labeling. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulations.

Agricultural Use Requirements

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal prefective equipment (PPE) and restricted entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is: coveralls, waterproof gloves, shoes plus socks, and protective everyear.

Non-Agricultural Use Requirements

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries or greenhouses.

Keep people and pets off treated areas until spray solution has dried to prevent transfer of this product onto desirable vegetation.

For more product information, call toll-free 1-800-332-3111.

Storage and Disposal

Do not contaminate water, foodstuffs, feed or seed by storage or dismosal

See container label for STORAGE AND DISPOSAL instructions.

GENERAL INFORMATION

DO NOT APPLY THIS PRODUCT USING AERIAL SPRAY EQUIPMENT EXCEPT UNDER CONDITIONS AS SPECIFIED WITHIN THIS LABEL.

This product, a water soluble figuid, mixes readily with water to be applied as a foliar spray for the control or destruction of most herbaceous plants. It may be applied through most standard industrial or field-type sprayers after dilution and thorough mixing with water in accordance with label instructions.

This product moves through the plant from the point of foliage contact to and into the root system. Visible effects on most annual weeds occur within 2 to 4 days, but on most perennial weeds may not occur for 7 days or more. Extremely cool or cloudy weather following treatment may slow activity of this product and detay visual effects of control. Visible effects are a gradual witting and yellowing of the plant which advances to complete browning of above-ground growth and deterioration of underground plant parts.

Unless otherwise Specified on this tabel, delay application until vegetation has emerged and reached the stages described for control of such vegetation under the "MEEDS CONTROLLED" section of this label. Unemerged plants arising from unattached underground rhizomes or root stocks of perennials will not be affected by the herbicide and will continue to grow. For this reason, best control of most perennial weeds is obtained when treatment is made at late growth stages approaching maturity.

Always use the higher rate of this product per acre within the recommended range when (1) weed growth is heavy or dense, or (2) weeds are growing in an undisturbed (noncultivated) area.

Do not treat weeds under poor growing conditions such as drought stress, disease or insect damage, as reduced weed control may result. Reduced results may also occur when treating weeds heavily covered with dust.

Reduced control may result when applications are made to annual or perennial weeds that have been mowed, grazed, or cut, and have not been allowed to regrow to the recommended stage for treatment.

Rainfall or irrigation occurring within 6 hours after application may reduce effectiveness. Heavy rainfall or irrigation within 2 hours after application may wash the chemical off the foliage and a repeat treatment may be required.

This product does not growide residual weed control. For subsequent residual weed control, follow a label-approved herbicide program. Read and carefully observe the cautionary statements and all other information appearing on the labels of all herbicides used.

Buyer and all users are responsible for all loss or damage in connection with the use or handling of mixtures of this product with herbicides or other materials that are not expressly recommended in this labeling. Mixing this product with herbicides or other materials not recommended on this label may result in reduced performance.

For best results, spray coverage should be uniform and complete. Bo not spray weed tokage to the point of runoff.

DOMESTIC ANIMALS: This product is considered to be relatively nontoxic to dogs and other domestic animals; however, ingestion of this product or large amounts of freshly sprayed vegetation may result in temporary gastrointestinal irritation (vomiting, diarrhea, colic, etc.). If such symptoms are observed, provide the animal with plenty of fluids to prevent dehydration. Call a veterinarian if symptoms persist for more than 24 hours.

ATTENTION

AVOID DRIFT. EXTREME CARE MUST BE USED WHEN APPLYING THIS PRODUCT TO PREVENT INJURY TO DESIRABLE PLANTS AND CROPS.

Do not allow the herbicide solution to mist, drip, drift or splash onto desirable vegetation since minute quantities of this product can cause severe damage or destruction to the crop, plants or other areas on which treatment was not intended. The likelihood of injury occurring from the use of this product is greatest when winds are gusty or in excess of 5 miles per hour or when other conditions, including tesser wind velocities, will allow spray drift to occur. Yhen soraying, avoid combinations of pressure and notzle type that will result in splatter or fine particles (mist) which are likely to drift. AVOID APPLYING AT EXCESSIVE SPEED OR PRESSURE.

NOTE: Use of this product in any manner not consistent with this label may result in injury to persons, animals or crops, or other unintended consequences. Keep container closed to prevent splits and contamination.

MIXING, ADDITIVES AND APPLICATION INSTRUCTIONS

APPLY THESE SPRAY SOLUTIONS IN PROPERLY MAINTAINED AND CALIBRATED EQUIPMENT CAPABLE OF DELIVERING DESIRED VOLUMES. DO NOT APPLY WHEN WIND OR OTHER CONDITIONS FAVOR

ORIFT. HAND-GUN APPLICATIONS SHOULD BE PROPERLY DIRECTED TO AVOID SPRAYING DESIRABLE PLANTS. NOTE: REDUCED RESULTS MAY OCCUR IF WATER CONTAINING SOIL IS USED, SUCH AS WATER FROM PONDS AND UNLINED DITCHES.

MIXING

This product mixes readily with water. Mix spray solutions of this product as follows: Fill the mixing or spray tank with the required amount of water. Add the recommended amount of this product (see the "DIRECTIONS FOR USE" and "WEEDS CONTROLLED" sections of this tabel) near the end of the lilting process and mix well. Use caution to avoid siphoning back into the carrier source. Use approved anti-back-siphoning devices where required by state or local regulations. During mixing and application, foaming of the spray solution may occur. To prevent or minimize foam, avoid the use of mechanical agitators, terminate by-pass and return lines at the bottom of the tank and, if needed, use an approved anti-loam or defoaming agent.

TANK MIXTURES

Atways predetermine the compatibility of labeled tank mixtures of this product with water carrier by mixing small proportional quantities in advance.

Mix labeled tank mixtures of this product with water as follows:

- 1. Place a 20 to 35 mesh screen or wetting basket over filling port.
- Through the screen, fift the spray tank one-half full with water and start agitation.
- If a wettable powder is used, make a sturry with the water carrier, and add it SLOWLY through the screen into the tank. Continue agitation
- If a flowable formulation is used, premix one part flowable with one part water. Add diluted mixture SLOWLY through the screen into the tank. Continue agitation.
- If an emulsifiable concentrate formulation is used, premix one part emulsifiable concentrate with two parts water. Add diluted mixture slowly through the screen into the tank. Continue agitation.
- Continue filling the spray tank with water and add the required amount of this product near the end of the filling process.
- Where nonionic surfactant is recommended, add this to the spray tank before completing the fitting process.
- Add individual formulations to the spray tank as follows: wettable powder, flowable, emulsifiable concentrate, drift control additive, water soluble liquid followed by surfactant.

Maintain good agitation at all times until the contents of the tank are sprayed. If the spray mixture is allowed to settle, thorough agitation is required to resuspend the mixture before spraying is resumed.

Keep by-pass fine on or near bottom of tank to minimize foaming. Screen size in nozzie or line strainers should be no finer than 50 mesh. Carefully select proper nozzie to avoid spraying a fine mist. For best results with conventional ground application equipment, use flat

Clean sprayer and parts immediately after using this product by thoroughly flushing with water.

ADDITIVES

SURFACTANTS

Nonionic surfactants which are labeled for use with herbicides may be used. Do not reduce rates of this product when adding surfactant. When adding additional surfactant, use 0.5 percent surfactant concentration (2 quarts per 100 gallons of spray solution) when using surfactants which contain at least 70 percent active ingredient or a 1 percent surfactant concentration (4 quarts per 100 gallons of spray solution) for those surfactants containing less than 70 percent active ingredient. Read and carefully observe surfactant cautionary statements and other information appearing on the surfactant label.

AMMONIUM SULFATE

The addition of 1 to 2 percent dry ammonium sulfate by weight or 8.5 to 17 pounds per 100 gallons of water may increase the performance of this product, and this product plus 2,4-D. Banvel^{FM} or residual herbicide tank mixtures on annual and perennial weeds. The improvement in performance may be apparent where environmental stress is a concern. Low-quality ammonium suffate may contain material that will not readily dissolve, which could result in nozzle tip plugging. To determine quality, perform a jar test by adding 1/3 cup of ammonium sulfate to 1 gallon of water and agitate for 1 minute, if undissolved sediment is observed, predissolve the ammonium sulfate in water and filter prior to addition to the spray tank. If ammonium sulfate is added directly to the spray tank, add slowly with agitation. Adding too quickly may clos outlet line. Ensure that ammonium sulfate is completely dissolved in the spray tank before adding herbicides or surfactant. Thoroughly rinse the spray system with clean water after use to reduce corrosion.

NOTE: The use of ammonium sulfate as an additive does not preclude the need for additional surfactant. Do not use herbicide rates lower than recommended in this label.

COLORANTS OR DYES

Agriculturally approved colorants or marking dyes may be added to this product. Colorants or dyes used in spray solutions of this product may reduce performance, especially at lower rates or dilutions. Use colorants or dyes according to the manufacturer's recommendations.

APPLICATION EQUIPMENT AND TECHNIQUES

Do not apply this product through any type of irrigation system.

This product may be applied with the following application equipment:

Aerial—Fixed Wing and Helicopter

Broadcast Spray

Controlled Droplet Applicator (CDA)—Hand-held or boommounted applicators which produce a spray consisting of a narrow range of droplet sizes.

Hand-Held and High-Volume Spray Equipment—Knapsack and backpack sprayers, pump-up pressure sprayers, handguns, handwands, mistblowers*, lances and other hand-held and motorized spray equipment used to direct the soray onto weed foliage.

*This product is not registered in Catifornia or Arizona for use in mistblowers.

Selective equipment—Recirculating sprayers, shielded sprayers and wiper applicators.

See the appropriate part of this section for specific instructions and rates of application.

AERIAL EQUIPMENT

Use the recommended rates of this herbicide in 3 to 15 gallons of water per acre unless otherwise specified on this label. See the "WEEDS CONTROLLED" section of this label for specific rates. Unless otherwise specified, do not exceed 1 quartiper acre. Aerial applications of this product may be made in annual cropping conventional littage systems, fallow and reduced tillage systems and preharvest applications. Refer to the individual use area sections of this label for recommended volumes and application rates. FOR AERIAL APPLICATION IN CALIFORNIA, REFER TO THE FEDERAL SUPPLEMENTAL LABEL FOR AERIAL APPLICATIONS IN THAT STATE FOR SPECIFIC INSTRUCTIONS, RESTRICTIONS AND REQUIREMENTS.

Avoid direct application to any body of water.

AVOID ORIFT—DO NOT APPLY DURING LOW-LEYEL INVERSION CON-DITIONS, WHEN WINDS ARE GUSTY OR UNDER ANY DIHER CONDI-TION WHICH FAVORS DRIFT. DRIFT MAY CAUSE DAMAGE TD ANY VEGETATION CONTACTED TO WHICH TREATMENT IS NOT INTENDED.

TO PREVENT INJURY TO ADJACENT DESIRABLE VEGETATION, APPROPRIATE BUFFER ZONES MUST BE MAINTAINED.

Coarse sprays are less likely to drift; therefore, do not use nozzles or nozzle configurations which dispense spray as fine spray droplets. Do not angle nozzles forward into the airstream and do not increase spray volume by increasing nozzle pressure.

Drift control additives may be used. When a drift control additive is used, read and carefully observe the cautionary statements and all other information appearing on the additive label.

Ensure uniform application—To avoid streaked, uneven or overlapped application, use appropriate marking devices.

Thoroughly wash aircraft, especially landing gear, after each day of spraying to remove residues of this product accumulated during spraying or from spills. PROLOGIGED EXPOSURE OF THIS PRODUCT TO UNCOATED STEEL SURFACES MAY RESULT IN CORROSION AND POSSIBLE FAILURE OF THE PART, LANDING GEAR ARE MOST SUSCEPTIBLE. The maintenance of an organic coating (paint), which meets aerospace specification MIL-C-38413, may prevent corrosion.

This product plus $Oust^{DA}$, Banvel or 2,4-D tank mixtures may not be applied by air in California.

BROADCAST EQUIPMENT

For control of annual or perennial weeds listed on this label using broadcast equipment—Use the recommended rates of this product in 3 to 40 gallons of water per acre as a broadcast saray unless otherwise specified on this label. See the "WEEDS CONIROLLED" section of this label for specific rates. As density of weeds increases, soray volume should be increased within the recommended range to ensure complete coverage. Carefully select proper nozzle to avoid spraying a fine mist. For best results with ground application equipment, use flat fan nozzles. Check for even distribution of spray droplets.

CONTROLLED DROPLET APPLICATION (CDA)

The rate of this groduct applied per acre by vehicle-mounted CDA equipment must not be less than the amount recommended in this label when applied by conventional broadcast equipment. For vehicle-mounted CDA equipment, apply 3 to 15 gallons of water per acre.

For the control of labeled annual weeds with hand-held CDA units, apply a 20 percent solution of this product at a flow rate of 2 fluid ounces per minute and a walking speed of 1.5 mph (1 quart per acre). For the control of labeled perannial weeds, apply a 20 to 40 percent solution of this product at a flow rate of 2 fluid ounces per minute and a walking speed of 0.75 mph (2 to 4 quarts per acre).

Controlled droplet application equipment produces a spray pattern which is not easily visible. Extreme care must be exercised to avoid spray or drift contacting the foliage of any other green tissue of desirable vegetation, as damage or destruction may result.

HAND-HELD and HIGH-VOLUME EQUIPMENT

Use coarse sprays only.

Mix this product in clean water and apply to foliage of vegetation to be controlled. For applications made on a spray-to-wet basis, spray coverage should be uniform and complete. Do not spray to the point of runoff

For control of annual weeds listed on this label, apply a 0.5 percent solution of this product plus nonionic surfactant to weeds less than 6 inches in height or runner length. Apply prior to seedhead formation in grass or bud formation in broadleaf weeds. Allow three or more days before tillage or mowing.

For annual weeds over 6 inches tall, or when not using additional surfactant, or unless otherwise specified, use a 1 percent solution. For best results, use a 2 percent solution on harder-to-control perennials,

such as bermudagrass, dock, field bindweed, hemp dogbane, milkweed and Canada thistle.

When using application methods which result in less than complete coverage, use a 5 percent solution for annual and perennial weeds and a 5 to 10 percent solution for woody brush and trees.

Prepare the desired volume of spray solution by mixing the amount of this product in water as shown in the following table:

Spray Solution

Desired			Amount	of Rascal ^d		
Volume _	1/2%	1%	11/2%	2%	5%	10%
1 Gal	2/3 OZ	11/3 02	2 02	22/3 07	61/z oz	13 oz
25 Gal	1 pt	i at	11/2 gt	2 gt	5 at	10 gt
100 Gal	2 qt	l gal	11/2 gal	2 gal	5 gal	10 gal

For use in knapsack sprayers, it is suggested that the recommended amount of this product be mixed with water in a larger container. Fill sprayer with the mixed solution.

SELECTIVE EQUIPMENT

This product may be applied through a recirculating spray system, a shielded applicator, or a wiper applicator after dilution and thorough mixing with water to listed weeds growing in any noncrop site specified on this label and only when specifically recommended in cropping systems.

A recirculating spray system directs the spray solution onto weeds growing above desirable vegetation, while spray solution not intercepted by weeds is collected and returned to the spray tank for reuse.

A shielded applicator directs the herbicide solution onto weeds, white shielding desirable vegetation from the herbicide.

A wiper applicator applies the herbicide solution onto weeds by rubbing the weed with an absorbent material containing the herbicide solution.

AVOID CONTACT WITH DESIRABLE VEGETATION.

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Contact of the herbicide solution with the desirable vegetation may result in damage or destruction. Applicators used above desired vegetation should be adjusted so that the lowest spray stream or wiper contact point is at least 2 inches above the desirable vegetation. Droplets, mist, foam, or splatter of the herbicide solution settling on desirable vegetation may result in discoloration, stunting or destruction.

Applications made above the crops should be made when the weeds are a minimum of 6 inches above the desirable vegetation. Better results may be obtained when more of the weed is exposed to the herbicide solution. Weeds not contacted by the herbicide solution will not be affected. This may occur in dense clumps, severe infestations or when the height of the weeds varies so that not all weeds are contacted. In these instances, repeat treatment may be necessary.

SHIELDED APPLICATORS

When applied as directed under conditions described for shielded applicators, this product will control those weeds listed in the "WEEDS CONTROLLEO" section of this label.

Use the following equation to convert from a broadcast rate per acre to a band rate per acre.

Band width <u>in inches</u> Row width in inches	X	Herbicide Broadcast RATE per acre	=	Herbicide Band RATE per acre
Band width <u>in inches</u> Row width in inches	X	Broadcast VOLUME of solution per acre	=	Band VOLUME of solution per acre

Use nozzles that provide uniform coverage within the treated area. Keep shields on shielded sprayers adjusted to protect desirable vegetation. EXTREME CARE MUST BE EXERCISED TO AVOID CONTACT WITH DESIRABLE VEGETATION.

For specific rates of application and instructions for control of various annual and perennial weeds, see the "WEEDS CONTROLLED" section of this label.

WIPER APPLICATORS

Wiper applicators are devices that physically wipe appropriate amounts of this product directly onto the weed.

Equipment must be designed, maintained and operated to prevent the herbicide solution from contacting desirable vegetation. Operate this equipment at ground speeds no greater than 5 mph. Performance may be improved by reducing speed in areas of heavy weed infestations to ensure adequate wiper saturation. Better results may be obtained if 2 applications are made in opposite directions.

Avoid leakage or dripping onto destrable vegetation. Adjust height of applicator to ensure adequate contact with weeds. Keep wiping surfaces clean. Be aware that, on sloping ground, the herbicide solution may migrate, causing dripping on the lower end and drying of the wicks on the upper end of a wiper applicator.

Do not use wiper equipment when weeds are wet.

Mix only the amount of solution to be used during a 1-day period, as reduced activity may result from use of leftover solutions. Clean wiper parts immediately after using this product by thoroughly flushing with

Do not add surfactant to the herbicide solution.

For Rope or Sponge Wick Applicators—Mix 1 gallon of this product in 2 gallons of water to prepare a 33 percent solution. Apply this solution to weeds listed in this "WIPER APPLICATORS" section.

For Porous-Plastic Applicators-Solutions ranging from 33 to 100 percent of this product in water may be used in porous-plastic wiper applicators.

When applied as recommended under the conditions described for "WIPER APPLICATORS", this product CONTROLS the following weeds:

ANNUAL GRASSES

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Rye, common

Zea mays

Secale cereale

Panicum, Texas Panicum texanum Shattercane Sorghum bicolor

ANNUAL BROADLEAVES

Sickleped

Starbur, bristly 3

Cassia obtusifolia

Acanthospermum-hispidum

Spanishneedles Bidens bipinnata

When applied as recommended under the conditions described for "WIPER APPLICATORS", this product SUPPRESSES the following weeds:

ANNUAL BROADLEAVES

Beggarweed, Florida Desmodium raduosum Ragweed, giant Ambrosia trifida

Sunflower

Eupatorium capilliflorium

Helianthus annuus

Pigweed, redroot

Thistle, musk Cardous nutans

Amaranthus retroflexus

Ragweed, common Ambosia artemisiifolia

Abutilon theophrasti

PERENNIAL GRASSES

Bermudagrass

22srgfum2

Cynodon dactylon Sporobolus poiretii

Guineagrass
Panicum maximum

Vaseygrass Paspalum urvillei

Johnsongrass Sorghum halepense

Sorghum halepense
PERENNIAL BROADLEAVES

Dogbane, hemp Apocynum cannabinum Nightshade, silverleaf Solanum elaeagnitolium

Milkweed Ascelepias syriaca Thistle, Canada Cirsium arvense

WEEDS CONTROLLED

This herbicide controls many annual and perennial grasses and broadleaf weeds.

ANNUAL WEEDS

- · Apply to actively growing grass and broadleaf weeds.
- · Allow at least 3 days after treatment before tiliage.
- For maximum agronomic benefit, apply when weeds are 6 inches or less in height.
- To prevent seed production, applications should be made prior to seedhead formation.
- This product does not provide residual control; therefore, delay application until maximum weed emergence. Repeat treatments may be necessary to control later germinating weeds.

LOW-VOLUME BROADCAST APPLICATION (LOW-RATE TECHNOLOGY)

When applied as directed under the conditions described, this product will control the weeds listed below when:

- Water carrier volumes of 3 to 10 gallons per acre for ground applications and 3 to 5 gallons per acre for aerial applications are recommended. (See the "AERIAL APPLICATION" section of this label for approved sites.)
- 2. A nonionic surfactant is added at 0.5 to 1 percent by total spray volume. Use 0.5 percent surfactant concentration when using surfactants which contain at least 70 percent active ingredient or a 1 percent surfactant concentration for those surfactants containing less than 70 percent active ingredient.

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- The addition of 2 percent dry ammonium sulfate by weight or 17 pounds per 100 gallons of water may increase the performance of this product on annual weeds. The improvement in performance may be apparent where environmental stress is a concern. Refer to the "MIXING, ADDITIVES and APPLICATION INSTRUCTIONS" section of this label.
- Do not tank-mix with soil residual herbicides when using theserates unless otherwise specified.
- For weeds that have been mowed, grazed or cut, allow regrowth to occur prior to treatment.
- Refer to the "TANK MIXTURES" portion of this section for control of additional broadleaf weeds.

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WEED SPECIES	MAXIMUM HEIGHT/LENGTH	RATÉ PER ACRE* (Fluid Ounces)		
Fortail Setaria spp.	12"	8 oz.		
Barnyardgrass Echinochloa crus-galli	6 (0 to 4 (4 to 6	12 oz. 16 oz.¹) 24 oz.¹)		
Bluegrass, annua! Poa annua				
Brome, downy** Bromus tectorum				
Mustard, blue Chorispora tenella		}		
Mustard, tansy Descurainia pinnata				
Mustard, tumble Sisymbrium altissimum				
Mustard, wild Sinapis arvensis				
Spurry, umbrella Holosteum umbellatum				
Barley Hordeum vulgare	12"			
Rye Secale cereale				
Sandbur, field Cenchrus spp.				

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Shattercane Sorghum bicolor		
Stinkgrass Eragiostis cilianensis		
Wheat Triticum aestivum	i8*	
Morningglory Ipomoea spp.	2"	16 o z.
Sicklepod Cassia obtusifolia		
Bluegrass, bulbous Poa bulbosa	6-	
Cheat Bromus secalinus		
Chickweed, common Stellaria media	;	
Chickweed, mouseear Cerastium volgatum		
Corn Zea mays		
Goalgrass, jointed Aegilops cylindrica	}	
Groundsel, common Senecio vulgaris		
Henbit Lamium amplexicaule	!	
Horseweed/Marestail Conyza canadensis		

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WEED SPECIES	MAXIMUM HEIGHT/LENGTH	RATE PER ACRE* (Fluid Ounces)
Lambsquarters, common Chenopodium album	6"	16 oz.
Pennycress, field Fanweed Thlaspi arvense		
Rocket, Landon Sisymbrium irio	}	,
Ryegrass, Italian Lolium multillorum		
Shepherdspurse Capsella bursa-pastoris		
Spurge, annual Euphorbia spp.		
Battercup Ranunculus spp.	12"	
Còcklebur Xanthium strumarium		
Crabgrass Digitaria spp.		
Dwarfdandelion Krigia cespitosa		
Falseflax, smalfseed Camelina microcarpa	}	· }
Fortail, Carolina Alopecurus carolinianus	(; ;	}

]
Johnsongrass, seedling Sorghum halepense	}	
Oats, wild Avena fatua		
Panicum, fall Panicum dichotomiflorum	}	
Panicum, Texas Panicum texanum	{	
Pigweed, redroot Amaranthus retroflexus	{	
Pigweed, smooth Amaranthus hybridus	}	
Witchgrass Panicum capillare	}	
Sicklepod Cassia obtusifolia	3 to 4"	24 oz
Signalgrass, broadleaf Brachiaria platyphylla	4*	
Horseweed/Mareslail Conyza canadensis	7 to 12"	
Lambsquarters, common Chenopodium album	[}	
Spurge, annual Euphorbia spp.		
Rice, red Oryza sativa	4-	32 oz.
Teaweed Sida spinosa		
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WEED SPECIES	MAXIMUM HEIGHT/LENGTH	RATE PER ACRE* (Fluid Ounces)
Sprangletop <i>Leptochloa spp.</i>	6*	32 oz.
Geranium, Carolina Geranium carolinianum	12*	
Goosegrass Eleusine indica		
Primrose, cutteat evening Oenothera laciniate		
Pusley, Florida - Richardia scabra		
Sicklepod Cassia obtusifolia	5 to 12"	
Spanishneedles Bidens bipinnata		
Filaree Erodium spp.	12"	48 oz.
Sprangletop Leptochioa spp.		

¹Use these rates to control barnyardgrass in Alabama, Arkansas, Mississippi, Missouri, Louisiana and Texas for preplant treatments.

- * For those rates less than 32 fluid ounces per acre, this product at rates up to 32 fluid ounces per acre may be used where heavy weed densities exist.
- ** For control in no-till systems, use 16 fluid ounces per acre.

TANK MIXTURES

RASCAL® plus BANVEL plus NONIONIC SURFACTANT

RASCAL plus 2,4-D plus NONIONIC SURFACTANT

DO NOT APPLY BANVEL OR 2.4-0 TANK MIXTURES BY AIR IN CALIFORNIA.

These tank mixtures are recommended for use in fallow and reduced tillage areas only. Follow use directions as given in the "LOW-VOLUME BROADCAST APPLICATION" section.

This product plus Banvel or 2.4-D will control the annual grasses and broadleaf weeds listed for this product alone at the indicated heights (except 8 fluid ounces per acre applications), plus the following broadleaf weeds. For those weeds previously listed at 8 fluid ounces of this product alone per acre, use 12 fluid ounces in these tank mixtures.

NOTE: Refer to the specific product labels for crop rotation restrictions and cautionary statements of all products used in tank mixtures. Some crop injury may occur if Banvel is applied within 45 days of planting. The addition of Banvel in a mixture with this product may provide short-term residual control of selected weed species.

Apply 12 to 16 fluid ounces of this product plus 0.25 pound a.i. of Banvel or 0.5 pound a.i. of 2.4-0, plus 0.5 to 1 percent nonionic surfactant by total spray volume per acre to control dense populations of the following annual broadleaf weeds when less than the height indirected.

Cocklebur (12")

Xanthium strumatium

Morningglory (6") Іротова вор.

Kochia* (6")

Pigweed, redroot (12")

Kochia scoparia

Amaranthus retroflexus

Lambsquarters (12") Chenopodium album Pigweed, smooth (12") Amaranthus hybridus

Lettuce, prickly (6") Lactuca semiola

Thistle, Russian (12") Salsola kali

Marestail/Horseweed (6°)

Conyza canadensis

*Controlled with Banvel tank mixture only.

Apply 16 fluid ounces of this product plus 0.5 pound a.i. of 2.4-D. plus 0.5 to 1 percent nonionic surfactant by total spray volume per acre to control the following annual broadleaf weeds when less than 6 inches in height.

Ragweed, common Ambrosia artemisiifolia Smartweed, Pennsylvania Polygonum pensylvanicum

Ragweed, giant Ambrosia trifida Velvetleaf

Abutilan theophrasti

HIGH-VOLUME BROADCAST APPLICATIONS

When applied as directed under the conditions described, this product will control the weeds listed below when water carrier volumes are 10 to 40 gailons per acre for ground applications.

Apply 1 to 1.5 quarts of this product per acre plus 0.5 to 1 percent nonionic surfactant by total spray volume. Use I quart per acre if weeds are less than 6 inches fall and 1.5 quarts per acre if weeds are over 6 inches tall. If weeds have been mowed, grazed or cut, allow adequate time for new growth to reach recommended stages prior to treatment. These rates will also provide control of weeds listed in the "LOW-VOLUME BROADCAST APPLICATION" section.

WEED SPECIES

Balsamapple*

Momordica charantia

Bassia, fivehook

Bassia hyssopifolia Brome

Bromus spp. Fiddleneck Amsinekia soo

Fleabane, hairy Conyza bonariensis

Fleabane Erigeran spp.

Kochia Kochia scoparia

Lettuce, prickly Lactuca serriola Panicum Panicum soo.

Ragweed, common Ambrosia artemisiilolia

Ragweed, giant Ambrosia trifida

Smartweed, Pennsylvania Polyganum pensylvanicum

Sowthistle, annual Sonchus cleraceus

Sunflower Helianthus annuus

Thistle, Russian Salsola kali

Velvetteaf Abutilon rheophrasti

*Apply with hand-held equipment only.

PERENNIAL WEEDS

Apply this product as follows to control or destroy most perennial

NOTE: If weeds have been mowed or titled, do not treat until plants have resumed active growth and have reached the recommended

Repeat treatments may be necessary to control weeds regenerating from underground parts or seed. Repeat treatments must be made prior to crop emergence.

The addition of 1 to 2 percent dry ammonium sulfate by weight or 8.5 to 17 pounds per 100 gallons of water may increase the performance

of this product on perennial weeds. The improvement in performance may be apparent where environmental stress is a concern. Refer to the "MING, ADDITIVES and APPLICATION INSTRUCTIONS" section of

When applied as recommended under the conditions described, this product WILL CONTROL the following PERENNIAL WEEDS:

Alfalfa

Medicago sativa

Alligatorweed*

Alternanthera philoxeroides
Anise (tennel)

Foeniculum vulgare Artichoke, Jerusalem Helianthus tuberosus

Bahiagrass Paspalum notatum

Bentgrass Agrostis spp.

Bermudagrass Cynodon daciylon

Bermudagrass, water (knolgrass) Paspalum distichum

Bindweed, field Convolvulus arvensis

Bluegrass, Kentucky Poa spp.

Blueweed, Texas Helianthus ciliaris

Brackentern Pteridium aquilinum Bromegrass, smooth Bromus inermis

Bursage, woollyleaf Franseria tomentosa

Canarygrass, reed Phalaris arundinacea

Cattail
Typha spp.
Clover, red
Tritolium pratense
Clover, white

Trifolium repens Cogongrass Imperata cylindrica

Dallisgrass Paspalum dilatatum

Dandelion Taraxacum officinale

Dock, curly Rumex crispus

Dogbane, hemp Apocynum cannabinum

Fescues Festuca spp.

Fescue, tall Festuca arundinacea

Guineagrass Pancium maximum

Horsenettle Solanum carolinense

Horseradish Armoracia rusticana

lce plant Mesembryanthemum crystallinum

Johnsongrass Sorghum halepense

Kükuyugrass Pennisetum clandestinum

Knapweed Centaurea repens

Lantana Lantana camara

Lespedeza , Lespedeza spp.

Milkweed Asclepias spp. Muhly, wirestem

Muhlenbergia frondonsa Mullein, common

Verbascum thapsus Napiergrass Pennisetum purpureum Nightshade, silverleal Solanum elaeagnitolium

Rutsedge; purple, yellow Cyperus rotundus Cyperus esculentus

Orchardgrass Dactylis glomerata

Pampasgrass Cortaderia spp. Paragrass

Paragrass

Brachiaria mutica

Phragmites*

Phragmites spp. Poison hemlock Conium maculatum

Quackgrass
Agropyron repens
Redvine*

Brunnichia ovata Reed, giant Arundo donax

Ryegrass, perennial Lolium perenne

Smartweed, swamp Polygonum coccineum

Spurge, leaty* Euphorbia esula

Starthistle, yellow Centaurea solstitalis

Sweet potato, wild*

Ipomoea pandurata

Trumpetcreeper*
Campsis radicans
Vaseygrass

Thistle, Canada Cirsium arvense

Paspalum urvillei

Thistle, artichoke Cynara cardunculus Velvetgrass Holcus spp.

Phleum pratense Torpedograss*

Timothy

Wheatgrass, western Agropyron smithii

Torpedograss*
Panicum repens

*Partial Control

This product is not registered in California for use on water bermudagrass.

See "DIRECTIONS FOR USE" and "MIXING, ADDITIVES and APPLICA-TION INSTRUCTIONS" sections of this label for labeled uses and specific application instructions.

Alfaifa---Apply 1 quart of this product per acre plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. Make application after the last hay cutting in the fall. Allow alfalfa to regrow to a height of 6 to 8 inches or more prior to treatment. Applications should be followed with deep tillage at least 7 days after treatment, but before soil freeze-up.

Alligatorweed—Apply 4 quarts of this product per acre or apply a 1.5 percent solution with hand-held equipment to provide partial control. Apply when most of the plants are in bloom. Repeat applications will be required to maintain such control.

Anise (tennel) / Poison hemlock—Apply a 1 to 2 percent solution of this product as a spray-to-wet treatment. Optimum results are obtained when plants are treated at the bud to full-bloom stage of growth. Repeat applications may be needed in succeeding years to control plants arising from seeds.

Bentgrass—For suppression in grass seed production areas. For ground applications only, apply 1.5 quarts of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 10 to 20 gallons of water per acre. Ensure entire crown area has resumed growth prior to a fall application. Bentgrass should be actively growing and have at least 3 inches of growth. Tillage prior to treatment should be avoided. Tillage 7 to 10 days after application is recommended for best results. Failure to use tillage after treatment may result in unacceptable control.

Bermudagrass—For control, apply 5 quarts of this product per acre, for partial control, apply 3 quarts per acre. Treat when bermudagrass is actively growing and seedheads are present. Retreatment may be necessary to maintain control. Allow 7 or more days after application before tillage.

Bermudagrass, water (knotgrass)—Apply 1.5 quarts of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 5 to 10 gallons of water per acre. Apply when water bermudagrass is actively growing and 12 to 18 inches in length. Allow 7 or more days before tilling, flushing or flooding the field.

fall applications only—Apply 1 quart of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 5 to 10 gallons of water per acre. Fallow fields should be tilled prior to application. Apply prior to frost on water bermudagrass that is actively growing and 12 to 18 inches in length. Allow 7 or more days before tillage.

Bindweed, field—For control, apply 4 to 5 quarts of this product per acre west of the Mississippi River and 3 to 4 quarts east of the Mississippi River. Apply when the weeds are actively growing and are at or beyond full bloom. Do not treat when weed is under drought stress as good soil moisture is necessary for active growth. For best results, apply in late summer or fall. Fall treatments must be applied before a killing trost. Allow 7 or more days after application before bilage.

Also for control, apply 2 quarts of this product plus 0.5 pound a.i. of Banvel in 10 to 20 gallons of water per acre. At these rates, apply using ground application only.

The following tank mixtures with 2,4-D may be applied using aerial application equipment (except in California) in fallow and reduced tillage systems only.

For suppression on irrigated agricultural land, apply 1 to 2 quarts of this product plus 1 pound a.i. of 2,4-0 in 10 to 20 gallons of water per acre with ground equipment only. Applications should be made following harvest or in fall fallow ground when the bindweed is actively growing and the majority of runners are 12 inches or more in length. The use of at least one irrigation will promote active bindweed growth.

For suppression, apply 16 fluid ounces of this product plus 0.5 pound a.i. of 2,4-D plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre for ground applications and 3 to 5 gallons of water per acre for aerial applications. Applications should be delayed until maximum emergence has occurred and when vines are between 6 to 18 inches in length.

In California only, apply 1 to 5 quarts of this product per acre. Actual rate needed for suppression or control will vary within this range depending on local conditions,

For suppression on irrigated land where annual tillage is performed, apply 1 quart of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. Apply to actively growing bindweed that has reached a length of 12 inches or greater. Allow maximum weed emergence and runner growth. Do not treat when weeds are under drought stress as good soil moisture is necessary for active growth. Allow 3 or more days after application before tillage.

Bluegrass, Kentucky / Bromegrass, smooth / Orchardgrass— Apply 2 quarts of this product in 10 to 40 gallons of water per acrewhen the grasses are actively growing and most plants have reached boot-to-early seedhead stage of development. For partial control in

pasture or hay crop renovation, apply 1 to 1.5 quarts of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. Apply to actively growing plants when most have reached 4 to 12 inches in height. Allow 7 or more days after application before tillage.

Orchardgrass (sods going to no-till corn)—Apply 1 to 1.5 quarts of this product per acre plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. Apply to orchardgrass that is a minimum of 12 inches tall for spring applications and 6 inches tall for fall applications. Allow at least 3 days following application before planting. A sequential application of alrazine will be necessary for optimum results.

Blueweed, Texas—Apply 4 to 5 quarts of this product per acre west of the Mississippi River and 3 to 4 quarts per acre east of the Mississippi River. Apply when weed is actively growing and is at or beyond full bloom. Do not treat when weed is under drought stress as good soil moisture is necessary for active growth. New leaf development indicates active growth. For best results, apply in late summer or fall. Fall treatments must be applied before a killing frost. Allow 7 or more days after application before tillage.—

Brackentern—Apply 3 to 4 quarts of this product per acre as a broadcast spray or as a 1 to 1.5 percent solution with hand-held equipment. Apply to fully expanded fronds which are at least 18 inches long.

Bursage, woollyleaf—for control, apply 2 quarts of this product plus 1 pint of Banvel per acre. For partial control, apply 1 quart of this product plus 1 pint of Banvel per acre. Add 0.5 to 1 percent nonionic surfactant by total spray volume and apply in 3 to 20 gallons of water per acre. Apply when plants are producing new active growth which has been initiated by moisture for at least 2 weeks and when plants are at or beyond flowering.

Canarygrass, reed / Timethy / Wheatgrass, western—Apply 2 to 3 quarts of this product per acre. For best results, apply to actively growing plants when most have reached the boot-to-head stage of growth. Allow 7 or more days after application before tillage.

Cogongrass—Apply 3 to 5 quarts of this product plus 0.5 to 1 percent nonionic surfactant in 10 to 40 gallons of water per acre. Apply when Cogongrass is at least 18 inches tall and actively growing in late summer or fall. Allow 7 or more days after application before tillage or mowing. Due to uneven stages of growth and the dense nature of vegetation preventing good spray coverage, repeat treatments may be necessary to maintain control.

Dandelion / Dock, curty—Apply 3 to 5 quarts of this product per acre when plants are actively growing and most have reached the early bud stage of growth. Allow 7 or more days after application before tillage.

Also for control, apply 16 fluid ounces of this product plus 0.5 pound a.i. 2,4-D plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre.

Dogbane, hemp—Apply 4 quarts of this product per acre. Apply when actively growing and when most weeds have reached the late bud to flower stage of growth. Following crop harvest or mowing, allow weeds to regrow to a mature stage prior to treatment. For best results, apply in late summer or fall. Allow 7 or more days after application before tillage.

For suppression, apply 16 fluid ounces of this product plus 0.5 pound a.i. of 2,4-D plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre for ground applications and 3 to 5 gallons of water per acre for aerial applications. Delay applications until maximum emergence of dogbane has occurred.

Fescue, tall—Apply 3 quarts of this product in 10 to 40 gallons of water per acre to actively growing plants when most have reached boot-to-early seedhead stage of development.

Fall applications only—Apply 1 quart of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. Apply to fescue in the fall when actively growing and plants have 6 to 12 inches of new growth. Allow 7 or more days after application before tillage. A sequential application of 1 pint per acre of this product plus nonionic surfactant will improve long-term control and control seedlings germinating after fall treatments or the following spring.

Guineagrass—Apply 3 quarts of this product per acre or use a 1 percent solution with hand-held equipment. Apply to actively growing guineagrass when most has reached at least the 7-leaf stage of growth. Ensure thorough coverage when using hand-held equipment. Allow 7 or more days after application before tillage.

Johnsongrass / Ryegrass, perennial—Apply 1 to 3 quarts of this product per acre. In annual cropping systems apply 1 to 2 quarts of this product per acre. Apply 1 quart of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. Use 2 quarts of this product when applying 10 to 40 gallons of water per acre. In noncrop, or areas where annual tillage (no-till) is not performed, apply 2 to 3 quarts of this product in 10 to 40 gallons of water per acre. For best results, apply to actively growing plants when most have reached the boot-to-head stage of growth or in the fall prior to frost. Allow 7 or more days after application before tillage. Do not tank-mix with residual herbicides when using the 1 quart per acre rate.

For burndown of Johnsongrass, apply 1 pint per acre plus 0.5 to 1 percent nonionic surfactant in 3 to 10 gallons of water per acre before the plants reach a height of 12 inches, For this use, allow at least 3 days after treatment before tillage.

Spot treatment (partial control or suppression)—Apply a 1 percent solution of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume when Johnsongrass is 12 to 18 inches in height. Coverage should be uniform and complete.

Kikuyugrass—Apply 2 to 3 quarts of this product per acre. Spray when most kikuyugrass is at least 8 inches in height (3- or 4-leaf stage of growth) and actively growing. Allow 3 or more days after application before tiltage.

Knapweed / Horseradish—Apply 4 quarts of this product per acre. Apply when actively growing and when most weeds have reached the late bud to flower stage of growth. Following crop harvest or mowing, allow weeds to regrow to a mature stage prior to treatment. For best results, apply in tate summer or fall. Allow 7 or more days after application before tillage.

Lantana—Apply this product as a 1 to 1.25 percent solution using hand-held equipment only. Apply to actively growing lantana at or beyond the bloom stage of growth. Use the higher application rate for plants that have reached the woody stage of growth: Allow 7 or more days after application before tillage.

Milkweed, common—Apply 3 quarts of this product per acre. Apply when actively growing and most of the milkweed has reached the late bud to flower stage of growth. Following small grain harvest or mowing, allow milkweed to regrow to a mature stage prior to treatment. Allow 7 or more days after application before tillage.

Muhly, wirestem—Apply 1 to 2 quarts of this product per acre. Use 1 quart of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. Use 2 quarts of this product when applying 10 to 40 gallons of water per acre or in pasture, sod, or noncrop areas. Spray when the wirestem muhly is 8 inches or more in height and actively growing. Do not till between harvest and fall applications or in the fall or spring prior to spring applications. Allow 3 or more days after application before tillage. This product will not provide residual control of wirestem muhly from seeds which germinate after application of this product. Oo not tank mix with residual herbicides when using the 1 quart per acre rate.

Nightshade, silverleaf—For control, apply 2 quarts of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. Applications should be made when at least 60 percent of the plants have berries. Fall treatments must be applied before a killing frost. Allow 7 or more days after application before tillage. Do not treat when weed is under drought stress as good soil moisture is necessary for active growth.

Nutsedge; purple, yellow—Apply 3 quarts of this product per acre as a broadcast spray, or apply a 1 to 2 percent solution from handheld equipment to control existing nutsedge plants and immalure nutlets attached to treated plants. Treat when plants are in flower or when new nutlets can be found at rhizome tips. Nutlets which have not germinated will not be controlled and may germinate following treatment. Repeat treatments will be required for long-term control of ungerminated tubers.

Sequential applications of 1 to 2 quarts of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gailons of water per acre will provide control. Make applications when a majority of the plants are in the 3- to 5-leaf stage (less than 6 inches tall). Repeat this application, as necessary, when newly emerging plants reach the 3- to 5-leaf stage. Subsequent applications will be necessary for long-term control.

For suppression to partial control of existing plants, apply 1 pint to 2 quarts of this product per acre, plus 0.5 to 1 percent nonionic surfactant in 3 to 40 gallons of water per acre. Treat when plants have 3 to 5 teaves and most are less than 6 inches tall. Repeat treatments will be required to control subsequent emerging plants or regrowth of existing plants. Wait 7 days after treatment before tillage or mowing.

Pampasgrass / Ice plant—Apply this product as a 1.5 to 2 percent solution using hand-held equipment. Apply to plants that are actively growing. Pampasgrass should be at or beyond the boot stage of growth. Thorough coverage is necessary for best control.

Phragmites—For partial control of phragmites in Florida and the counties of other states bordering the Gulf of Mexico, apply 5 quarts per acre as a broadcast spray or apply a 2 percent solution from hand-held equipment. In other areas of the U.S., apply 3 quarts per acre as a broadcast spray or apply a 1 percent solution from hand-held equipment for partial control. For best results, treat during late summer or fall months or when plants are actively growing and in full bloom. Treatment before or after this stage may lead to reduced control. Due to the dense nature of the vegetation, which may prevent good spray coverage or uneven stages of growth, repeat treatments may be necessary to maintain control. Visual control symptoms with be slow to develop.

Quackgrass—In Annual Cropping Systems, or in Pastures and Sods Followed by Deep Tillage: Apply 1 to 2 quarts of this product per acre. For the 1 quart rate, apply 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. For the 2 quart rate, apply in 10 to 40 gallons of water per acre. Oo not tank mix with residual herbicides when using the 1 quart rate. Spray when quackgrass is 6 to 8 inches in height and actively growing. Do not till between harvest and fall applications or in fall or spring prior to spring application. Allow 3 or more days after application before tillage. In pastures or sods, for best results use a moldboard plow.

Quackgrass—Pasture or Sod or Other Noncrop Areas Where Deep Tillage is Not Planned Following Application: Apply 2 to 3 quarts in 10 to 40 gallons of water per acre. Spray when the quackgrass is greater than 8 inches tall and actively growing. Do not till between harvest and fall application or in fall or spring prior to spring application. Allow 3 or more days after application before tillage.

Redvine—For suppression, apply 24 fluid ounces of this product per acre at each of two applications 7 to 14 days apart or a single application of 2 quarts per acre. Apply recommended rates in 5 to 10 gallons of water per acre plus 0.5 to 1 percent nonionic surfactant by total volume. Apply in tate September or early October to actively growing plants, which are at least 18 inches tall and have been grow-

ing 45 to 60 days since the last tillage operation. Make applications at least 1 week before a killing trost.

Reed, giant—For control of giant reed, apply a 2 percent solution of this product when plants are actively growing. Best results are obtained when applications are made in late summer to fall.

Smartweed, swamp—Apply 3 to 5 quarts of this product per acre when plants are actively growing and most have reached the early bud stage of growth. Allow 7 or more days after application before tillage.

Also for control, apply 16 fluid ounces of this product plus 0.5 pound active ingredient of 2.4-0 plus 0.5 to 1 percent nonionic surfactant by total volume in 3 to 10 gallons of water per acre in the late summer or fall. Apply when plants are actively growing and most have reached the early bud stage of growth. Allow 7 or more days after application before tiflage.

Spurge, featy—For suppression, apoly 16 fluid ounces of this product plus 0.5 pound active ingredient 2.4-0 plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre in the late summer or laff. Apply when plants are actively growing. If mowing has occurred prior to treatment, apply when most of the plants are 12 inches tall. Allow 7 or more days after application before tillage.

Starthistle, yellow—Best results are obtained when applications are made during periods of active growth, including the rosette, bolting and early flower stages. For spray-to-wet applications, apply this product as a 2 percent solution. For broadcast applications, apply 2 quarts per acre in 10 to 40 gallons per acre of water carrier.

Sweet Potato, wild / Thistle, artichoke—Apply this product as a 2 percent solution using hand-held equipment. Apply to actively growing weeds that are at or beyond the bloom stage of growth. Repeat applications may be required. Allow the plant to reach the recommended stage of growth before retreatment. Allow 7 or more days before tillage.

Thistle, Canada—Apply 2 to 3 quarts of this product per acre. Apply to actively growing thistles when most are at or beyond the bud stage of growth. After harvest, mowing or tillage in the late summer or fall, allow at least 4 weeks for initiation of active growth and rosette development prior to the application of this product. Fall treatments must be applied before a killing frost. Allow 3 or more days after application before tillage.

For suppression of Canada thistle, apply 1 quart per acre of this product, or 1 pint of this product plus 0.5 pound a.i. 2,4-D per acre, plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre in the late summer or fall after harvest, moving or tillage. Allow rosette regrowth to a minimum of 6 inches in diameter before treating. Applications can be made as long as leaves are still green and plants are actively growing at the time of application. Allow 3 or more days after application before tillage.

Torpedograss---Apply 4 to 5 quarts of this product per acre to provide partial control of torpedograss. Apply to actively growing torpedograss when most plants are at or beyond the seedhead stage of growth. Repeat applications will be required to maintain control. Fall treatments must be applied before trost. Allow 7 or more days after application before tillage.

Trumpetcreeper-For control, apply 2 quarts of this product per acre in 5 to 10 gallons of water per acre. Apply to actively growing plants in late September or October, which are at least 18 inches tall and have been growing 45 to 60 days since the last tiliage operation. Make applications at least 1 week before a killing trost.

Other perenaials listed on this label---Apply 3 to 5 quarts of this product per acre. Apply when actively growing and most have reached early head or early bud stage of growth, Allow 7 or more days after application before tillage.

WOODY BRUSH AND TREES

When applied as recommended under the conditions described, this product CONTROLS or PARTIALLY CONTROLS the following woody brush, plants and trees:

Alder

Alnus spp.

Ash*

Fraxinus 500.

Aspen, quaking Populus tremuloides

Bearmat (Bearclover)

Chamaebatia toliolosa

Fagus grandifolia

Betula spp.

Rlackberry

Rubus spp.

Blackgum

Myssa spp.

Bracket Peridium spp.

Broom:

French

Cytisus monspessulanus

Scotch

Cytisus scoparius

Buckwheat, California*

Eriogonum fasciculatum

Cascara*

Rhamnus purshiana

Catsclaw*

Acacia greggi Ceanothus*

Ceanothus spp.

Chamise

Adenostoma fasciculatum

Cherry:

Bitter Prunus emarginata

Black

Prunus serotina

Prunus pensylvanica

Coyote brush

Baccharis consanguinea

Creeper, Virginia*

Parthenocissus quinquefolia

Dewberry

Rubus trivialis

Dagwood* Cornus spp.

Elderberry Sambucus spp. Elm* Maple: Red** Ulmus spp. Acer rubrum Eucalyptus Sugar Eucalyptus spp. Acer saccharum Gorse Yine* Ulex europaeus Acer circinatum Hasardia* Haplopappus squamosus Monkey Flower* Mimulus guttatus Hawthorn Crataegus spp. Black* Hazel Quercus velutina Corylus spp. Northern Pin Hickory* Quercus palustris Carya spp. Past Holly, Florida/ Quercus stellata Brazilian Peppertree* Schinus terebinthifolius Red Quercus rubra Honeysuckle Southern Red Lonicera spp. Quercus falcata Hornbeam, American* White* Carpinus caroliniana Quercus alba Pueraria lobata Persimmon* Diospyros spp. Locust, black* Robinia pseudoacacia Pine Pinus spp. Madrone

Poplar, yallow
Liriodendron tulipilera
Raspberry
Rubus spp.
Redbud, eastern
Cercis canadensis
Rose, multiflora
Rosa multiflora

Arbutus menziesii

Arctostaphylos spp.

Manzanita

Russian-olive Elaeagnus angustifolia Sage; black, white Salvia spp.

Sagebrush, California Artemisia californica

Salmonberry Rubus spectabilis Salt cedar

Tamarixs spp. Sassatras Sassatras aibidum

Sourwood Oxydendrum arboreum Sumac:
Poison*
Rhus vernix
Smooth*
Rhus glabra
Winged*
Rhus copallina

Poison lvy

Paison Oak

Rhus radicans

Rhus toxicodendron

Sweetgum Uquidambar siyraciflua

Swordfem*
Polystichum munitum
Tallowtree, Chinese
Sapium sebiierum
Tan Oak

Lithocarpus densiflorus Thimbleberry

Rubus parvillorus Tobacco, tree* Nicotiana glauca Trumpetcreeper

Trumpetcreeper
Campsis radicans
Waxmyrtle, southern*
Myrica cerifera

Willow Saïx spp.

*Partial control

**See below for control or partial control instructions.

NOTE: If brush has been mowed or tilled or trees have been cut, do not treat until regrowth has reached the recommended stages of

Apply this product when plants are actively growing and, unless otherwise directed, after full leaf expansion. Use the higher rate for larger plants and/or dense areas of growth. On vines, use the higher rate for plants that have reached the woody stage of growth. Best results are obtained when application is made in late summer or fall after fruit formation.

In arid areas, best results are obtained when application is made in the spring to early summer when brush species are at high moisture

Ensure thorough coverage when using hand-held equipment. Symptoms may not appear prior to frost or senescence with fall treatments.

Allow 7 or more days after application before tillage, mowing or removal. Repeat treatments may be necessary to control plants regenerating from underground parts or seed. Some autumn colors on undesirable deciduous species are acceptable provided no major leaf drop has occurred. Reduced performance may result if fall treatments

See "DIRECTIONS FOR USE" and "MIXING, ADDITIVES and APPLICA-TION INSTRUCTIONS" sections of this label for labeled uses and specific application instructions.

Apply this product as follows to control or partially control the follow-

Alder / Dewberry / Honeysuckle / Post Oak / Raspberry—For control, apply 3 to 4 quarts per acre of this product as a broadcast spray or as a 1 to 1.5 percent solution with hand-held equipment.

Aspen, quaking / Cherry: bitter, black, pin / Hawthorn / Oak, southern red / Sweetgum / Trumpetcreeper—For control, apply 2 to 3 quarts of this product per acre as a broadcast spray or as a 1 to 1.5 percent solution with hand-held equipment.

Birch / Elderberry / Hazel / Salmonberry / Thimbleherry—For control, apply 2 quarts per acre of this product as a broadcast spray or as a I percent solution with hand-held equipment.

Blackberry—For control, apply 3 to 4 quarts per acre of this product as a broadcast spray, or 1 to 1.5 percent solution with hand-held equipment. Make application after plants have reached full leaf maturity. Best results are obtained when applications are made in late summer or fall. After berries have set or dropped in late fall, blackberry can be controlled by applying a 3/4 percent solution of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume with hand-held equipment. For control of blackbernes after leaf drop and until killing frost or as long as stems are green, apply 3 to 4 quarts of this product in 10 to 40 gallons of water per acre.

Broom: French, Scotch—For control, apply a 1.5 to 2 percent solu-

Buckwheat, California / Hasardia / Monkey Flower / Jobacco. tree—For partial control of these species, apply a 1 to 2 percent solution of this product as a foliar spray with hand-held equipment. Thorough coverage of foliage is necessary for best results.

Catsclaw—For partial control, apply as a 1 to 1.5 percent solution

Coyote Brush—For control, apply a 1.5 to 2 percent solution with hand-held equipment when at least 50 percent of the new leaves are

Eucalyptus—For control of eucalyptus resprouts, apply a 2 percent solution of this product with hand-held equipment when resprouts are 5 to 12 feet tall. Ensure complete coverage. Apply when plants are growing actively. Avoid application to drought-stressed plants.

Kudzu—For control, apply 4 quarts of this product per acre as a broadcast spray or as a 2 percent solution with hand-held equipment. Repeat applications will be required to maintain control

Madzone resprouts—For suppression or partial control, apply a 2 percent solution of this product to resprouts less than 3 to 6 feet tall. Best results are obtained with spring/early summer treatments.

Maple, red—For control, apply as a 1 to 1.5 percent solution with hand-held equipment when at least 50 percent of the new teaves are fully developed. For partial control, apply 2 to 4 quarts of this product per acre as a broadcast spray.

Maple, sugar / Oak, northern pin / Oak, red—For control, apply as a 1 to 1.5 percent solution with hand-held equipment when at least 50 percent of the new leaves are fully developed.

Poison Ivy / Poison Oak—For control, apply 4 to 5 quarts of this product per acre as a broadcast spray or as a 2 percent solution with hand-held equipment. Repeat applications may be required to maintain control. Fall treatments must be applied before leaves lose green color.

Rose, multiflora—For control, apply 2 quarts of this product per acre as a broadcast spray or as a 1 percent solution with hand-held equipment. Treatments should be made prior to leaf deterioration by leaf-feeding insects.

Sage, black / Sagebrush, California / Chamise / Tallowtree, Chinese—For control of these species, apply a 1 percent solution of this product as a foliar spray with hand-held equipment. Thorough coverage of foliage is necessary for best results.

Tan oak resprouts—For suppression or partial control, apply a 2 percent solution of this product to resprouts less than 3 to 6 feet fall. Best results are obtained with fall applications.

Willow—For control, apply 3 quarts of this product per acre as a broadcast spray or as a 1 percent solution with hand-held equipment.

Other Woody Brush and Trees listed on this label—For partial control, apply 2 to 5 quarts of this product per acre as a broadcast spray or as a 1 to 2 percent solution with band-held equipment.

NONCROP USES

See "GENERAL INFORMATION" and "MDING, ADDITIVES and APPLICATION INSTRUCTIONS" sections of this label for essential product performance information and the following "NONCROP" sections for specific recommended uses.

EXTREME CARE MUST BE EXERCISED TO AVOID CONTACT OF SPRAY WITH FOLIAGE, GREEN STEMS, EXPOSED NON-WOODY ROOTS OR FRUIT OF CROPS, DESIRABLE TURFGRASSES, TREES, SHRUBS OR OTHER DESIRABLE VEGETATION SINCE SEVERE DAMAGE OR DESTRUCTION MAY RESULT.

Repeat treatments may be necessary to control weeds regenerating from underground parts or seeds.

Where repeat applications are necessary, do not exceed 10.6 quarts of this product per acre per year.

This product does not provide residual weed control. For subsequent weed control, follow a label-approved herbicide program.

Read and carefully observe the cautionary statements and all other information appearing on the labels of all herbicides used.

INDUSTRIAL, RECREATIONAL AND PUBLIC AREAS

When applied as directed for "NONCROP USES", under conditions described, this product controls annual and perennial weeds listed on this label growing in areas such as airports, ditch banks, dry ditches, dry canals, fencerows, golf courses, highways, industrial plant sites, lumber yards, parking areas, parks, petroleum tank farms and pumping installations, pipelines, power and telephone rights-of-way, railroads, roadsides, sctrools; storage areas, utility substations, other public areas and similar industrial or noncrop areas.

For specific rates of application and instructions for control of various annual and perennial weeds and woody brush and trees, see the "WEEDS CONTROLLED" section of this label.

This product may be applied with recirculating sprayers, shielded applicators; or wiper applicators in any noncrop site specified on this label. See the Selective Equipment part of "APPLICATION EQUIPMENT and TECHNIQUES" section of this label for information on proper use and calibration of this equipment

TANK MIXTURES FOR INDUSTRIAL SITES AND FORESTRY SITE PREPARATIONS

RASCAL® plus OUSTIN

Use on industrial sites including airports, industrial plants, lumberyards, petroleum tank farms, pumping stations, railroads, roadsides. storage areas or other similar sites where bare ground is desired.

This tank mixture may also be used as a site preparation treatment for sites to be planted to jack pine, toblotly pine, red pine, stash pine and Virginia pine. When applied as directed for "NONCROP USES" under the conditions described, this product plus Oust provides control of annual weeds listed in the "WEEDS CONTROLLED" section of the label for this product and Oust, and control or partial control of the perennial weeds listed below.

Apply 1 to 2 quarts of this product with 2 to 4 ounces of Oust in 10 to 40 gallons of spray solution per acre as a broadcast spray to actively growing weeds.

This mixture may be applied by aerial equipment in site prep operations. When applied by air, use the recommended rates in 5 to 15 gallons of spray solution per acre.

This product plus Oust tank mixtures may not be applied by air in California.

For control of annual weeds, use the lower rates of these preducts. For control of the listed perennial weeds, use the higher rates of both products. For partial control, use the lower rates. Bahiagrass Johnsongrass**

Sorghum halepense

Poorjoe**

Quackgrass

Vaseygrass

Vervain, blue

Diodia teres

Agropyron repens

Trumpetcreeper*

Campsis radicans

Paspalum urvillei

Paspalum notatum

#2267gebunneB Cynodon dactylon Broomsedge

Andropogon virginicus Dock, carry

Rumex crispus Dogtennet

Eupatorium capilliforium

Fescue, tall

Festuca arundinacea

*Suppression at the higher rates only. Verbena hastata

**Control at the lower rates.

Read and carefully observe the cautionary statements and all other information appearing on the labels of all herbicides used.

TANK MIXTURES NONCROP SITES

When applied as a tank mixture, this product provides control of the emerged annual weeds and partial control of the emerged perennial weeds listed in this label. When applied as a tank mixture, the following residual herbicides will provide preemergence control of the weeds

	•	54
	RASCAL® plus DIURON	
	RASCAL plus KROVARIM1	
	RASCAL plus KROVAR II	
	RASCAL plus RONSTARIM 50WP	
=	RASCAL plus SIMAZINE. Princep Caliber™ 90	-
	RASCAL plus SIMAZINE 4L	
	RASCAL plus SIMAZINE 80W	
	RASÇAL plus SURFLANTM 75W	
	RASCAL plus SURFLAN AS	=

When tank mixing with residual herbicides, add an agriculturally approved nonionic surfactant at 0.5 to 1 percent by volume of spray solution. See the "MIXING, ADDITIVES and APPLICATION INSTRUCTIONS" section of this label before preparing these tank mixtures.

Read and carefully observe the label claims, cautionary statements, recommended use rates and all other information on the labels of all products used in these tank mixtures. Use according to the most restrictive label directions for each product in the mixture.

CONTROL OF EMERGED WEEDS

NOTE: For backpack sprayer and handgun applications, see the "HAND-HELD AND HIGH VOLUME EQUIPMENT" section for recommended rates.

Annual Weeds---Apply I quart per acre of this product in these tank mixtures when weeds are less than 6 inches tall and 1.5 quarts per acre when weeds are more than 5 inches tall.

Perennial Weeds—For partial control of perennial weeds using these tank mixtures, apply 2 to 5 quarts per acre of this product follow the recommendations in the "WEEDS CONTROLLEO" section of this label for stage of growth and rate of application for specific perennial weeds.

PREEMERGENCE WEED CONTROL

For preemergence weed control, refer to the individual product labels for specific noncrop sites, rates, carrier volumes and precautionary statements.

Mix only the quantity of spray solution which can be used during the same day. Do not allow these tank mixtures to stand overnight as this may result in reduced weed control.

FARMSTEAD WEED CONTROL

When applied as directed for "NONCROP USES", under conditions described, this product controls undesirable vegetation listed on this label around farmstead building foundations, along and in fences, shelterbelts and for general nonselective farmstead weed control.

For specific rates of application and instructions for control of various annual and perennial weeds, see the "WEEDS CONTROLLED" section of this label.

FARM DITCHES

This product will suppress perennial grasses along farm ditches. Apply this product at a rate of 6 to 8 fluid ounces per acre. Use 8 fluid ounces per acre when treating tall (coarse) fescue, fine fescue, orchardgrass or quackgrass covers. For best suppression of these species, add ammonium sulfate at a rate of 1.7 pounds per 10 gallons of spray solution. Use 6 fluid ounces per acre without ammonium sulfate when treating Kentucky bluegrass.

Apply treatments in 10 to 20 gallons of spray solution per acre to actively growing perennial grass covers, For best spray distribution and coverage, use flat fan nozzles.

Add a nonionic surfactant at a rate of 0.5 percent of the spray solution

Where broadleaf weed control or suppression is desired, tank mix this product with an appropriate, labeled broadleaf weed herbicide.

CONSERVATION RESERVE PROGRAM (CRP ACRES)

This product can be used to control undesirable vegetation when rotating out of CRP acres or to suppress competitive growth and seed production of undesirable vegetation in CRP acres.

For specific rates of application for various annual and perennial weeds, see the "WEEDS CONTROLLED" section of this label.

CRP applications may be made with wiper applicators or conventional spray equipment.

For selective applications with broadcast spray equipment, apply 12 to 16 ounces per acre of this product in early spring before desirable CRP grasses, such as crested and tall wheatgrass, break dormancy and initiate green growth. Late fall applications can be made after desirable perennial grasses have reached dormancy. Some stunting of CRP perennial grasses will occur if applications are made when plants are not dormant.

HABITAT MANAGEMENT

This product is recommended for the restoration and/or maintenance of native habitats and in wildlife management areas. Apply as recommended in the "NONCROP USES" section of this label.

Habitat Restoration and Maintenance—When applied as directed, exotic and other undesirable vegetation may be controlled in habitat management areas. Applications can be made to allow recovery of native plant species, prior to planting desirable native species, and for similar broadspectrum vegetation control requirements in habitat

management areas. Spot treatments can be made to selectively remove unwanted plants for habitat maintenance and enhancement. For spot treatments, care should be exercised to keep spray off of desirable plants.

Wildlife Food Plots—This product may be used as a site preparation treatment prior to planting wildlife food plots. Any wildlife food species may be planted after applying this product, or native species may be allowed to repopulate the area. If tillage is needed to prepare a seedbed, wait 7 days after applying this product before tilling.

ORNAMENTALS, TREE NURSERIES AND CHRISTMAS TREES

THIS PRODUCT IS NOT RECOMMENDED FOR USE AS AN OVER-THE-TOP BROADCAST SPRAY IN ORNAMENTALS AND CHRISTMAS TREES.

NOTE: Desirable plants may be protected from the spray solution by using shields or coverings made of cardboard of other impermeable material

When applied as instructed for the conditions described for "NON-CROP USES" this product controls undesirable vegetation listed on this label prior to planting, within and around greenhouses and shadehouses, and as a postdirected spray around established ornamentals and Christmas trees.

For specific rates of application and instructions for control of various annual and perennial weeds, see the "WEEDS CONTROLLED" section of this tabel

Where repeat applications are necessary, do not exceed $10.6\ \text{quarts}$ of this product per acre per year.

Site Preparation—Following preplant applications of this product, any ornamental, nursery species or Christmas tree species may be planted. Precautions should be taken to protect nontarget plants during site preparation applications.

Greenhouse / Shadehouse Use—This product may be used to control weeds listed on this label which are growing in greenhouses. Desirable vegetation must not be present during application and air circulation fans must be turned off.

Postdirected Spray—Use as a postdirected spray around established woody ornamental species, nursery species or Christmas trees such as those listed below. Care must be exercised to avoid contact of spray, drift or mist with foliage of or green bank of established ornamental species.

Arborvitae Thuja spp.

Azalea

Rhododendion spp. Borwood

Buxus spp.

Crabapple Malus spp.

Euonymus Euonymus spp.

Fir

Abies spp. Pseudotsuga spp.

Jojoba Simmondsia chinensis

Hollies
Hex spp.

Lilac

Syringa spp. Magnolia

Magnolia SPP.

Maple Acer spp.

Oak Quercus spp.

Privet

Ligustrum spp. Pine

Pinus spp.

Spruce
Picea spp.

Yew Taxus spp.

SILVICULTURAL SITES and RIGHTS-OF-WAY

NOTE: NOT RECOMMENDED FOR USE AS AN OVER-THE-TOP BROAD-CAST SPRAY IN SILVICULTURAL NURSERIES.

When applied as directed for "NONCROP USES" under conditions described, this product controls undesirable vegetation listed on this label. This product also suppresses or controls undesirable vegetation listed on this label when applied at recommended rates for release of established coniferous species listed on this label.

For specific rates of application and instructions for control of various brush, annual and perennial weeds, see the "WEEDS CONTROLLEO" section of this label. For specific rates of application for release of listed coniferous species, see the "CONIFER RELEASE" part of this section of the label.

Where repeat applications are necessary, do not exceed 10.6 quarts of this product per acre per year.

Aerial Application—This product may be applied using aerial spray equipment for silvicultural site preparation, conifer release and rights-of-way treatments. See the "APPLICATION EQUIPMENT and TECHNIQUES" part of the "MIXING, ADDITIVES and APPLICATION INSTRUCTIONS" section of this label for information on how to apply this product by air

DO NOT APPLY THIS PRODUCT BY AIR TO RIGHTS-OF-WAY SITES IN THE STATE OF CALIFORNIA

To reduce the aerial application drift hazard to aquatic sites*, to nontarget sites or any site containing desirable vegetation, always maintain appropriate buffer zones. A buffer zone of the following minimum distances should be maintained:

 Helicopters using a Microfoil^{IM} boom, a Thru-Valve^{IM} boom (TVB-45), or equivalent drift control systems, should maintain at least a 50-toot buffer zone.

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- · When using other aerial equipment:
- 1. Maintain at least a 75-foot buffer zone for applications using 2 quarts or less per acre of this product.
- 2. Maintain at least a 125-foot buffer zone for applications using more than 2 quarts per acre of this product.
- 3. Maintain at least a 400-foot buffer zone for applications on rights-of-way when applied from 75 feet or more above ground level.

These distances should be increased if conditions favoring drift exist.

*Aquatic sites include all lakes, ponds and streams used for significant domestic purposes or angling

SITE PREPARATION

Following preplant applications of this product, any silvicultural species may be planted.

POSTDIRECTED SPRAY

In established silvicultural sites, use as a spray on the foliage of undesirable vegetation. Care must be exercised to avoid contact of spray, drift or mist with foliage or green bank of desirable species.

CONIFER RELEASE

For release, apply only where conifers have been established for more than one year. Vegetation should not be disturbed prior to treatment or until visual symptoms appear after treatment. Symptoms of treatment are slow to appear, especially in woody species treated in late fall. Injury may occur to conifers treated for release, especially where spray patterns overlap or the higher rates are applied or when applications are made during periods of active conifer growth. Do not use additional surfactant with conifer release applications.

Applications must be made after formation of final conifer resting buds in the fall or prior to initial bud swelling in spring. Some autumn

colors on undesirable deciduous species are acceptable provided no release to control or partially control the working rates for conifer release to control or partially control the weeds listed in the "WEEDS CONTROLLED" section of this label.

For release of the following conifer species:

Douglas fir

+34.9°

Pseudotsuga menziesii

Fir Abies spp.

Pines* Pinus son. Spruce

Picea spo

Hemlock

Isuga son.

*Includes all species except eastern white pine, loblolly pine or stash

Apply 1.5 to 2 quarts of this product per acre except in Washington and Oregon, west of the crest of the Cascade Mountains. For spring treatments west of the crest of the Cascade Mountains, apply 1 quart of this product per acre before conifer bud swell for control of annual weeds. For fall treatments in Washington and Oregon, west of the crest of the Cascade Mountains, apply 1 to 1.5 quarts of this product per acre before any major leaf drop of deciduous species.

For release of western hemlock, apply 1 quart of this product per

For release of the following conifer species:

Lobially pine Pinus taeda

Slash pine Pinus efficttii

Eastern white pine

Pinus strobus

Late Season Application—Apply 1.5 to 2 quarts of this product in a minimum of 5 gallons of spray solution per acre during early autumn. Applications made prior to September 1 or when conditions are conducive to rapid growth of conifers will create the potential for increased injury in the form of tip and/or needle burn. Injury may

decrease with later applications. Some autumn colors are acceptable at time of application. Apply prior to frost or leaf drop of undestrable plants. Applications made according to label directions will release lablally pine, eastern white pine and slash pine by reducing competition from the following species:

Ash

Fraxinus spp.

White

Quercus alba

Cherry: Black

Persimmon Diospyros spp.

Prunus serotina

Poplar, yellow

Pin

Liriodendron tuliptera

Prunus pensylvanica

Sassatras

Sassafras albidum

Ulmus spp. Hawthorn

Sourwood

Crataegus spp. Locust, black

Oxydendrum arboreum Sumac:

Pobina pseudoacacia

Poison Rhus vernix

Maple, red Acer rubra Smooth Rhus glabra

Oak:

ta (E

Winged

Black

Quercus velutina

Rhus copallina

Sweetgum

Post

Quercus stellata

Liquidambar styraciflua

Southern Red Quercus falcata

Apply only to those sites where woody brush and trees listed in this label constitute the majority of the undesirable species.

AASCAL+ PIUS DUST TANA MIXTURES FOR CONIFER RELEASE FROM HERBACEOUS WEEDS

To release lobiotly pines from herbaceous weeds, tank mixtures of this product with Oust will provide control of annual weeds listed in the "WEEDS CONTROLLED" section of this and the Oust label, and partial control of the perennial weeds fisted below.

Apply 16 to 24 fluid ounces of this product with 2 to 4 ounces of Oust in 10 to 30 gallons of spray solution per acre. Make application to actively growing weeds as a proadcast spray over the top of the young

This product plus Oust tenk mixtures may not be applied by air in

This tank mixture may be applied using aerial equipment. When applying by air, use the recommended rate in 5 to 15 gallons of spray

for control of annual weeds below 12 inches in height (or runner length on annual vines), use the lower rates of both products. Use the higher rates of both products when annual weeds are in more advanced stages of growth and approaching flower or seed formation.

Use the higher rates of both products for pertial control of the following perennial weeds. Use the lower rates for suppression of growth.

Bahiagrass Paspalum notatum

Johnsongrass* Sorghum halepense

Broomsedge Andropogon virginicus

Pagrice* Diodia teres

Dock, curiy Rumex crispus

Trumpetcreeper** Campsis radicans

Doglennel

Vaseygrass

Eupatorium capillitorium Fescue, tall

Paspalum urvillei Veryain, blue Verbena hastata

Festuca arundinacea

- *Control at the higher rates.
- **Suppression at the higher rates only.

Pine damage may occur or can be accentuated if treatment takes place when young trees are under stress from drought, flood water, insects or disease.

Read and observe the cautionary statements and all other information appearing on the labels of all herbicides used.

NOTE TO USER

This product must not be used in areas where adverse impact on federally designated endangered/threatened plant or aquatic species

Prior to making applications, the user of this product must determine that no such species are located in or immediately adjacent to the area to be treated.

CUT STUMP TREATMENTS

Woody vegetation may be controlled by treating freshly cut stumps of trees and resprouts with this product. Apply this product using suitable equipment to ensure coverage of the entire cambium. Cut vegetation close to the soil surface. Apply a 50 to 100 percent solution of this product to the frashly-cut surface immediately after cutting. Delays in application may result in reduced performance. For best results, applications should be made during periods of active growth and full leaf expansion.

When used according to directions for cut stump application, this product will CONTROL, PARTIALLY CONTROL or SUPPRESS many types of woody brush and tree species, some of which are listed below:

Alder

Madrone

Arbutus menziesii

Alnus spp.

0ak

Eucalyptus Eucalyptus spp.

Quercus spp.

Reed, giant

Tan Qak

Arundo donax

Lithocarpus densiflorus

Saltcedar

Willow

Tamarisk spp.

Salix spp.

Sweetgum

Liquidambar styraciflua

INJECTION AND FRILL APPLICATIONS

Woody vegetation may be controlled by injection or frill application of this product. Apply this product using suitable equipment which must penetrate into the living tissue. Apply the equivalent of 1 ml of this product per each 2 to 3 inches of trunk diameter (O8H). This is best achieved by applying a 50 to 100 percent concentration of this material either to a continuous frill around the tree or as cuts evenly spaced around the tree below all branches. As tree diameter increases in size, better results are achieved by applying diluted material to a continuous frill or more closely spaced cuttings. Avoid application techniques that allow runoff to occur from frill or cut areas in species that exude sap freely after frills or cutting. In species such as this, make frill or cut at an oblique angle so as to produce a cupping effect and use undiluted material. For best results, application should be made during periods of active growth and after full leaf expansion.

This treatment WILL CONTROL the following woody species:

0ak

Sweetgum

Quercus spp.

Liquidambar styraciflua

Poplar

Sycamore

Populus soo.

Platanus occidentalis

This treatment WILL SUPPRESS the following woody species:

Black gum Nyssa sylvatica Hickory Carya spp.

Dogwood

Maple, red

Cornus spp.

Acer rubrum

TURFGRASSES AND GRASSES FOR SEED PRODUCTION

PREPLANT AND RENOVATION

When applied as directed for "NONCROP USES", under conditions described, this product controls most existing vegetation prior to the planting or renovation of either turfgrasses or grass seed production

For specific rates of application and instructions for control of various annual and perennial weeds, and woody brush and trees, see the "WEEDS CONTROLLED" section of this label.

For maximum control of existing vegetation, delay planting to determine if any regrowth from escaped underground plant parts occurs. Where repeat treatments are necessary, sufficient regrowth must be attained prior to application. For warm-season grasses, such as bermudagrass, summer or fall applications provide best control.

DO NOT DISTURB SOIL OR UNDERGROUND PLANT PARTS BEFORE TREATMENT. Tiltage or renovation techniques such as vertical mowing, coring or slicing should be delayed for 7 days after application to allow proper translocation into underground plant parts.

<u>TURFGRASSES</u>

Where existing vegetation is growing in a field or unmowed situation, apply this product to actively growing weeds at the stages of growth listed in the "WEEDS CONTROLLED" section of this label.

Where existing vegetation is growing under mowed turfgrass management, apply this product after omitting at least one regular mowing to allow sufficient growth for good interception of the spray.

Desirable turigrasses may be clanted following the above procedures.

GRASSES FOR SEED PRODUCTION

Apply this product to actively growing weeds at the stages of growth recommended in the "WEEDS CONTROLLED" section of this label

prior to planting or renovation of turf or forage grass areas grown for seed production.

DO NOT feed or graze treated areas within δ weeks after application.

ANNUAL WEED CONTROL IN DORMANT BERMUDAGRASS AND BAHIAGRASS TURF

When applied as directed for "NONCROP USES" under the conditions described, this product will provide control or suppression of many winter annual weeds and tall fescue for effective release of dormant bermudagrass and behiagrass turf. Refer to the rate table for Rascal alone under the "RELEASE OF BERMUDAGRASS and BAHIAGRASS" section of this label for recommended rates and volumes on the species to be suppressed or controlled. Treat only when turf is dormant and prior to spring greenup. Spot treatments or broadcast applications of this product in excess of 16 fluid ounces, per acre may result in injury or delayed greenup in highly maintained turfgrass areas; i.e., golf courses, fawns, etc. DO NOT APPLY TANK MIXTURES of this product glus Oust in highly maintained turfgrass areas.

RELEASE OF BERMUDAGRASS OR BAHIAGRASS

NOTE: Use only in areas where bermudagrass or bahiagrass are desirable ground covers and where some temporary injury or discoloration can be tolerated. Use tank mixtures of this product plus Oust only on railroads, highways, utility plant sites, or other right-of-way areas.

When applied as directed for "NONCROP USES" under the conditions described, this product will erovide control or suppression of many winter annual weeds and tall fescue for effective release of dormant bermudagrass or bahiagrass. This product may be tank-mixed with Oust as recommended for residual control. Make applications to dormant bermudagrass or bahiagrass. Tank mixtures of this product plus

Oust may delay greenup. To avoid delays in greenup and minimize injury, do not add more than 1 ounce per acre of Oust on bermudagrass or more than 0.5 ounce per acre on bahiagrass, or treat when these grasses are in a semi-dormant condition.

For best results on winter annuals, treat when plants are in an early growth stage (below 6 inches in height) after most have germinated. For best results on tall fescue, treat when fescue is in or beyond the 4- to 5-leaf stage.

WEEDS CONTROLLED

Rate recommendations for control or suppression of winter annuals and tall fescue are listed below:

Apply the recommended rates of this product alone or as a tank mixture in 10 to 25 gallons of water, plus 0.5 to 1 percent nonionic surfactant by total spray volume per acre.

For the best recommendation for the mixture of weeds within your geographic area, contact your Monsanto sales representative.

WEEDS CONTROLLED OR SUPPRESSED WITH RASCAL® ALONE*

 $\begin{array}{ll} \text{NSTE: } & \text{C} = \text{Control} \\ & \text{S} = \text{Suppression} \end{array}$

	Rascal® FLUID OZ/ACRE									
WEED SPECIES	8	3]	12	16	24	32	64			
Barley, little Hordeum pusilium		8	С	C	C	С	С			
Bedstraw, catchweed Galium aparine	5		С	C	Ç	C	С			
Bluegrass, annual <i>Poa annua</i>	\$	8	С	C	С	С	С			
Chervi) Chaerophyllum tainturieti	s	(c	c	C	С	C			
Chickweed, common Stellaria media	S	C	;	C	С	C	С			
Clover, crimson Trifolium incarnatum	•	S		S	С	Ç	c			
Clover, large hop Trifolium campestre	•	S		S	С	C	С			
Fescue, tall Festuca arundinaceae	•	•		•	•	s	S			
Geranium, Carolina Geranium carolinianum	•	•	5	`	S	С	С			
Henbit Lamium amplexicaule	•	\$	С		С	С	c'			
Ryegrass Italian <i>Lolium multiflorum</i>			S	ا	С	C.,	Č,			
Speedwell, com Veronica arvensis	S	C ·	С	(:	c	C			
Vetch, common Vicia sativa	•		S	C	: (C (c			
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^{*}These rates apply only to sites where an established competitive turf is present.

WEEDS CONTROLLED OR SUPPRESSED WITH RASCAL® PLUS OUST*

NOTE: C = ControlS = Suppression

				Rasc	ai@ -	+ Ous	st	
WEED Species	Rascal (FL. OZ/A) + OUST (OZ/A)	8 + 1/4	12 ÷	12 + 1/2	16 + 1/4	16 + 1/2	12 + 1	16 ÷ 1
Barley, lit Hordeum	tlle n pusilium	С	С	Ç	С	С	С	С
Bedstraw Galium a	, catchweed apanne	C	C	C	C	С	С	G
Bluegrass Poa anni		\$	C	С	C	C	, с	С
Chervit Chaeropi	hyllum tainturieri	С	C	C	С	С	C	C
Chickwee Stellaria	d, common media	S	C	С	С	C	Ç	С
Clover, cri <i>Trifolium</i>	mson incarnatum	S	S	S	S	С	С	C
Clover, lar, <i>Trifolium</i>	ge hop campestre	•	٠	\$.	S	S	C	C
Fescue, ta Festuca a	II Irundinaceae	•	•	•	•	•	S	\$
Geranium, <i>Geranium</i>	Carolina carolinianum	•	S	S	C	С	C	C
Henbit <i>Lamium a</i>	mplexicaule	•	S	C	С	С	С	С
Ryegrass, I <i>Lolium me</i>		•	S	S	C	C	C	C

Speedwell, corn Veronica arvensis Vetch, common Vicia sativa

When applied as directed, this product will aid in the release of bermudagrass by providing control of annual species listed in the "WEEDS CONTROLLED" Section of this and the Oust label, and suppression or partial control of certain perennial weeds.

For control or suppression of those annual species listed on this label. use 1 to 3 pints of this product as a broadcast spray in 10 to 25 galions of spray solution per acre. Use the lower rate when treating annual weeds below 6 inches in height (or length of runner in annual vines). Use the higher rate as weeds increase in size or as they

Use the higher rate of this product for partial control of the following perennial species. Use the lower rates for suppression of growth. For best results, see the "WEEDS CONTROLLED" section of this label for proper stage of growth

Johnsongrass* Sorghum halepense

Irumpetcreeper** Campsis radicans

Paspalum urvillei

Vaseygrass

Bahiagrass

Ì i

Paspalum notatum

Bluestem, silver

Andropogon saccharoides fescue, tall

Festuca arundinacea

*Control at the higher rates.

**Suppression at higher rates only.

*These rates or mixtures of rates apply only to sites where an estab-RELEASE OF ACTIVELY GROWING BERMUDAGRASS

This product may be tank-mixed with Oust. If tank-mixed, use no more than 1 to 2 pints per acre of this product with 1 to 2 ounces of

Use the lower rates of both mixtures to control annual weeds below 6 inches in height (or runner length in annual vines) that are listed in the "WEEDS CONTROLLED" section of this booklet and the Oust label. Use the higher rates as annual weeds increase in size and approach the flower or seedhead stages.

Use the higher rates of this product to provide partial control of the following perennial weeds. Use the lower rates for suppression of growth.

Bahiagrass

Paspalum notatum

Bluestem, silver Andropogon saccharoides

Broomsedge Andropogon virginicus

Dock, curty Rumex crispus

Doglennel Eupatorium capilliforium lohnsongrass* Sorghum halepense

Paarjae** Diodia teres

Trumpetcreeper* Campsis radicans

Vaseygrass Paspalum urvillei

Vervain, blue Verbena hastata

Fescue, tall

· . . .

Festuca arundinacea *Suppression at higher rates only.

**Control at the higher rates.

Use only on well-established bermudagrass. Bermudagrass injury may result from the treatment but regrowth will occur under moist conditions. Repeat applications in the same season are not recommended, since severe injury may result.

Read and carefully observe the cautionary statements and all other information appearing on the labels of all herbicides used.

COOL SEASON TURF GROWTH REGULATION

When applied as directed, this product will suppress growth and seedhead development of listed turi species in industrial sites.

This product is recommended for management of coarse turf on roadside rights-of-way or other industrial areas. Do not use on high-quality turl or other areas where some turl color changes cannot be tolerated. Slight turi discoloration may occur but turi will regreen and regrow under moist conditions as effects of this product wear off.

Apply 4 to 6 fluid ounces of this product per acre alone or in a recommended tank mixture. Spray volumes of 10 to 40 gallons per acre are recommended.

When using this product, mix 2 quarts of a nonionic surfactant per 100 gallons of spray solution.

This product can be used for growth and seedhead suppression of:

Tall Fescue Smooth Brome

For best results, apply this product in a recommended tank mixture to actively growing turtgrasses after greenup in the spring of the year. For suppression of seedneads, applications must be made before boot-to-seedhead stage of development. Applications made from seedhead emergence until maturity may result in turi discoloration or

After mowing or removal of seedheads, this product in a recommended tank mixture may also be used to suppress the growth of certain turigrasses. Allow lurf to recover from stress caused by heat. drought or mowing before making applications. Applications made to turf under stress may increase the potential for discoloration or injury.

ANNUAL GRASSES

For growth suppression of some annual grasses such as annual ryegrass, wild barley and wild bats, apply 3 to 4 fluid ounces of this product in 10 to 40 gallons of spray solution per acre. Applications should be made when annual grasses are actively growing and before the seedheads are in the boot stage of development. Treatments made after seedhead emergence may cause injury to the desired grasses.

TANK MIXTURES

For the following tank mixtures, consult each product label for weeds controlled and the correct stage of application. Do not treat turf under stress.

Tank mixtures plus 2,4-D Amine

For additional weed control benefits, up to 1 pound a.i. per acre of 2.4-0 amine may be added to the following tank mixtures. Consult the label for 2.4-0 amine for weeds controlled.

TALL FESCUE

Rascal plus Telar™

For suppression of tall fescue growth and seedheads, and control or partial control of some annual weeds, apply this tank mixture after greenup and prior to boot-to-seedhead stage of development. Use up to 0.5 ounce of Telar per acre.

This tank mixture can also be applied after moving or removal of tall tescue seedheads for turi growth suppression. Make only one of the above applications per growing season.

Rascal plus Oust

For suppression of tall tescue growth and seedheads, and control or partial control of some annual weeds, apply this tank mixture after greenup and prior to boot-to-seedhead stage of development. Use up to 0.25 ounce of Oust per acre.

Rascal plus Escortik

This tank mixture can be applied after mowing or removal of tall fescue seedheads for turf growth suppression and control or partial control of some annual weeds. Use up to 1/3 ounce of Escort per acre.

SMOOTH BROME

Rascal plus Oust

For suppression of smooth brome growth and seedheads and control or partial control of some annual weeds, apply this tank mixture after greenup and prior to boot-to-seedhead stage of development. Use up to 0.25 ounce of Oust per acre.

BAHIAGRASS SEEDHEAD AND VEGETATIVE SUPPRESSION

When applied as directed in the indicated noncrop areas (roadsides, airports, golf course roughs, and plant sites), this product will provide significant inhibition of seedhead emergence and will suppress vegetative growth for a period of approximately 45 days with single applications and approximately 120 days with sequential applications.

Apply this product 1 to 2 weeks after full greenup of bahiagrass or after the bahiagrass has been mowed to a uniform height of 3 to 4 inches. Applications must be made prior to seedhead emergence. Apply δ fluid ounces per acre of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 10 to 25 gallons of water per acre.

Sequential applications of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume may be made at approximately 45 day intervals to exend the period of seedhead and vegetative growth suppression. For continued seedhead suppression, sequential applications must be made prior to seedhead emergence. Apply no more than 2 sequential applications per year. As a first sequential application, apply 4 fluid ounces of this product per acre plus nonionic surfactant. A second sequential application of 2 to 4 fluid ounces per

acre plus nonionic surfactant may be made approximately 45 days after the last application.

A tank mixture of this product plus Oust may be applied only on roadsides for seedhead inhibition and vegetative suppression. Apply 6 fluid ounces per acre of this product plus 0.25 ounce per acre of Oust, plus 0.5 to 1 percent nonionic surfactant by total spray volume 1 to 2 weeks following an initial spring mowing. When using this product plus Oust for suppression of bahiagrass, make only 1 application per year.

CROPPING SYSTEMS

When applied as directed for "CROPPING SYSTEMS", under the conditions described, this product controls annual and perennial weeds listed on this label, prior to the emergence of direct seeded crops or prior to transplanting of crops fisted on this label.

See "GENERAL INFORMATION" and "MIXING, ADDITIVES and APPLICATION INSTRUCTIONS" sections of this label for essential product performance information.

See the following "CROPPING SYSTEMS" sections for specific recommended uses.

EXTREME CARE MUST BE EXERCISED TO AVOID CONTACT OF SPRAY WITH FOLIAGE, GREEN STEMS OR FRUIT OF DESIRABLE CROPS, PLANTS, TREES OR OTHER DESIRABLE VEGETATION SINCE SEVERE DAMAGE OR DESTRUCTION MAY RESULT.

Repeat treatments may be necessary to control weeds regenerating from underground parts or seed. Except as otherwise specified on this label, repeat treatments must be made before the crop emerges in accordance with the instructions of this label.

Except as otherwise specified in a crop section of this label, the combined total of all treatments must not exceed 8 quarts per acre of this product per year.

For any crop not listed below, applications must be made at least 30 days prior to planting.

Do not harvest or feed treated vegetation for 8 weeks following application. Following spot treatment or selective equipment use, allow 14 days before grazing domestic livestock or harvesting forage grasses and legumes.

 ROW CROPS
 PUMMELO

 CORN (ALL)*
 TANGELO

 COTTON*
 TANGERINE

 PEANUTS
 TANGORS

 SORGHUM (MILO)*
 TREE NUTS

 SOYBEANS*
 ALMOND

SUGARCANE* ALMOND
SUGARCANE* BEECHNUT
CEREAL GRAINS BRAZIL NUT
BARLEY* BUTTERNUT
BUCKWHEAT* CASHEW
MILLET (PEARL, PROSO)* CHESTNUT

OATS* CHINQUAPIN
RICE** FILBERT (HAZELNUT)
RYE* HICKORY NUT
TRITICALE* MACADAMIA
WHEAT (ALL)* PECAN

WILD RICE* PISTACHIO WALNUT (BLACK, ENGLISH)
CALAMONDIN VINE CROPS

CHIRONIA GRAPES
CITRON KIWI FRUIT
GRAPEFRUIT
KUMQUAT APPLE
LEMON APRICOTS

LIME
MANDARIN ORANGE
CHERRY (SWEEL SOUR)
LOQUAT

ORANGE (ALL) LOQUAT HAYKAW

NECTARINE
OLIVE
PEACH
PEAR
PLUM/PRUNE (ALL)
GUINCE

QUINCE

YEGETABLES

ARTICHONE,
JERUSALEM

ASPARAGUS*
BEANS (ALL)
BEET GREENS
BEETS (RED. SUGAR)
BROCCOLI (ALL)
BRUSSELS SPROUTS
CABBAGE (ALL)
CABBAGE. CHINESE
CANTALOUPE***

CARROT

CAULIFLOWER
CASABA MELON***
CELERIAC
CELERY
CHARD, SWISS
CHICORY
COLLARDS
CRENSHAW MELON***
CUCUMBER***
EGGPLANT***
ENDIVE
GARLIC***
GDURDS***

GROUND CHERRY***

HONEYDEW MELON***

HONEY BALL MELON***
HORSERADISH
KALE
KOHLRABI
LEEK
LENTILS
LETTUCE
MANGO MELON***
MELONS (ALL)***

MUSKMELON***
MUSTARD GREENS
OKRA
ONION
PARSLEY
PARSNIPS
PEAS (ALL)
PEPPER (ALL)***
PERSIAN MELON***
POTATO (IRISH, SWEET)

PUMPKIN***
RADISH
RAPE GREENS
RHUBARB
RUTABAGA
SHALLOT
SPINACH (ALL)
SQUASH
(SUMMER, WINTER)***

(SUMMER, HITTER)
TOMATILLO***
TOMATO***†
TURNIP
WATERCRESS***
WATERMELON***
YAMS

SMALL FRUITS AND BERRIES

BLACKBERRY
BLUEBERRY
BOYSENBERRY
CRAMBERRY
CURRANT
OEWBERRY
ELOERBERRY
GOOSEBERRY
HUCKLEBERRY
LOGANBERRY
OLALLIEBERRY
RASPBERRY (BLACK, RED)

FORAGE CROPS AND LEGUMES
ALFALFA*
FORAGE GRASSES*
FORAGE LEGUMES*
IROPICAL CROPS

ACEROLA
ATEMOYA
AYOCADO
BAHAHA (PLANTAINS)
BREADFRUIT
CANSTEL

CANISTEL
CARAMBOLA
*Spot treatmen

COCOA BEANS COFFEE DATES FIGS GENIP

CHERIMOYA

FIGS GENIP GUAYA JABOTICABA JACKFRUIT LONGAN LYCHEE

MANGO
PAPAYA
PASSION FRUIT
PERSIMMONS
PINEAPPLE***
POMEGRANATE
SAPODILLA

SAPOTE (BLACK, MAMEY WHITE) SOURSOP SUGAR APPLE TAMARIND TEA

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- *Spot treatments may be applied in these crops.
- **Do not treat rice fields or levees when the fields contain flood water.
- ***Apply only prior to planting. Allow at least 3 days between application and planting.
- ****Do not feed or graze treated pineappte forage following application.

†Use is restricted to direct seeded crops only.

When applying this product prior to transplanting crops into plastic mulch, care must be taken to remove residues of this product from the plastic prior to transplanting. Residues can be removed by 0.5 inch natural rainfall or by applying water via a sprinkler irrigation system.

Spot Treatment (Only those crops with "*" can be spot treated.) — Applications in growing crops must be made prior to heading of small grains and mile, initial pod set in soybeans, silking of corn, or boll opening on cotton.

For forage grasses and forage legumes see "SPOT TREATMENT" in the "PASTURES" section of "CROPPING SYSTEMS" in this label

For dilution and rates of application using boom or hand-held equipment, see "MIXING, ADDITIVES and APPLICATION INSTRUCTIONS" and "WEEDS CONTROLLED" sections of this label.

NOTE: FOR FORAGE GRASSES AND FORAGE LEGUMES. NO MORE THAN ONE-TENTH OF ANY ACRE SHOULD BE TREATED AT ONE TIME. FOR ALL OTHER CROPS, DO NOT TREAT MORE THAN 10 PERCENT OF THE TOTAL FIELD AREA TO BE HARVESTED.

THE CROP RECEIVING SPRAY IN TREATED AREA WILL BE KILLED. TAKE CARE TO AVOID DRIFT OR SPRAY OUTSIDE TARGET AREA FOR THE SAME REASON.

Selective Equipment—This product may be applied through recirculating sprayers, shielded applicators or wiper applicators in cotton and soybeans. Shielded and wiper applicators may also be used in tree crops and grapes. Wiper applicators may be used in wheat. rutabagas, forage grasses and forage legumes, including pasture sites and grain sorghum (milo).

See the "SELECTIVE EQUIPMENT" part of the "APPLICATION EQUIP-MENT and TECHNIQUES" section of this label for information on proper use and calibration of this equipment.

Allow at least the following time intervals between application and

Cotton, Soybeans	7 days
Apples, Citrus, Pear	l day
Atemoya, Avocado, Breadfruit, Canistel, Carambola,	
Cherry, Grapes, Dates, Jaboticaba, Jackfruit, Longan,	
Lychee, Passion Fruit, Persimmons, Rutabagas,	
Sapodilla, Sapote, Soursop, Sugar Apple, Tamarind!	4 days
Stans Fruit	7 days

¹ Do not use roller applicators.

2 Do not feed or graze treated milo fodder. Do not ensile treated vegetation.

ASPARAGUS

When applied as directed for "CROPPING SYSTEMS" under the conditions described, this product controls weeds listed on this label in

For specific rates of applications and instructions for control of various annual and perennial weeds, see the "WEEDS CONTROLLED" section of this label.

Prior to Crop Emergence-Apply this product prior to crop emergence for the control of emerged labeled annual and perennial weeds. DO NOT APPLY WITHIN A WEEK BEFORE THE FIRST SPEARS EMERGE.

Spot Treatment—Apply this product immediately after cutting, but prior to the emergence of new spears. Do not treat more than 10 percent of the total field area to be harvested. Do not harvest within 5 days of treatment.

Postharvest—Apply this product after the last harvest and all spears have been removed. If spears are allowed to regrow, delay application until ferns have developed. Delayed treatments should be applied as directed or shielded spray in order to avoid contact of the spray with ferns, stems or spears. Direct contact of the spray with the asparagus may result in serious crop injury.

NOTE: Select and use recommended types of spray equipment for postemergence postharvest applications. A directed spray is any application where the spray pattern is aligned in such a way as to avoid direct contact of the spray with the crop. A shielded spray is any application where a physical barrier is positioned and maintained between the spray and the crop to prevent contact of spray with the crop.

BERRIES AND SMALL FRUITS

Wiper applicators may be used in cranberries in accordance with instructions in this section.

for other berries, apply as a preplant broadcast application, or as a directed spray or wiper application post-planting.

See "GENERAL INFORMATION" and "MIXING, ADDITIVES and APPLI-CATION INSTRUCTIONS" sections of this label for essential product performance information.

See the "SELECTIVE EQUIPMENT" part of the "APPLICATION EQUIP-MENT and TECHNIQUES" section of this label for information on recommended use and calibration of this equipment.

Allow a minimum of 30 days between last application and harvest of cranberries. For other small fruits and berries, allow a minimum of 14 days between last application and harvest.

For Wick or other Wiper Applicators—Mix 1 gallon of this product in 4 gallons of water to prepare a 20 percent solution.

In severe infestations, reduce equipment ground speed to ensure that adequate amounts of this product are wiped on the weeds. A second treatment in the opposite direction may be beneficial.

Do not permit herbicide solution to contact desirable vegetation, including green shoots, canes or foliage.

CORN

Hooded Sprayers—This product may be used through hooded sprayers for weed control between the rows of corn. Only hooded sprayers that completely enclose the spray pattern may be used.

A hooded sprayer is a type of shielded applicator. The spray pattern is completely enclosed on the top and all 4 sides by a hood, thereby shielding the crop from the spray solution. This equipment must be set up and operated in a manner that avoids bouncing or raising the hoods off the ground in any way. If the hoods are raised, spray particles may escape and come into contact with the crop, causing damage or destruction of the crop. The spray hoods must be operated on the ground or skimming across the ground. Tractor speed must be rough or sloping ground where the spray hoods might be raised off the ground.

When applying to corn that is grown on raised beds, ensure that the hood is designed to completely enclose the spray solution. If necessary, extend the front and rear flaps of the hoods to reach the ground in deep furrows.

Follow these requirements:

- The spray hoods must be operated on the ground or skimming across the ground.
- Do not apply more than 1 quart of this product per acre per application.
- Corn must be at least 12 inches tall, measured without extending leaves.
- Leave at least an 8 inch untreated strip over the drill row. For example, if the crop row width is 38 inches, the maximum width of the spray hood should be 30 inches.

- · Maximum tractor speed: 5 mph.
- · Maximum wind speed: 10 mph.
- · Use low-drift nozztes.

Crop injury may occur when the loliage of treated weeds comes into direct contact with leaves of the crop. Do not apply this product when the leaves of the crop are growing in direct contact with weeds to be treated. Oroplets, mist, foam or splatter of the herbicide solution may contact the crop and cause discoloration, stunting or destruction.

Contact of this product in any manner to any vegetation to which treatment in not intended may cause damage. Such damage shall be the sole responsibility of the applicator.

For specific rates of application and instructions for control of various annual and perennial weeds, see the "WEEDS CONTROLLED" section of this label.

Do not graze or feed corn forage or fodder following applications of this product through hooded sprayers.

Do not apply more than 3 quarts of this product per acre per year for hooded sprayer applications.

FALLOW AND REDUCED TILLAGE SYSTEMS

FOR AERIAL APPLICATION IN CALIFORNIA, REFER TO SUPPLEMENTAL LABEL.

Use this product in fallow and reduced tillage systems for control of annual weeds prior to emergence of crops listed in this label. Refer to the "WEEDS CONTROLLED" section of this label for specific rates and instructions. This product may be applied using ground or aerial spray equipment. See the "APPLICATION EQUIPMENT and TECHNIQUES" section of this label for instructions.

TANK MIXTURES

RASCAL® plus BANVEL plus Nonionic Surfactant

RASCAL plus 2,4-D plus nonionic surfactant

RASCAL plus GOALIM plus Nonionic Surfactant

DO NOT APPLY BANYEL OR 2,4-D TANK MIXTURES BY AIR IN CALI-FORNIA.

Applications of 2,4-0 or Banvel must be made at least 7 days prior to planting corn.

The addition of Banvel in a mixture with this product may provide short-term residual control of selected weed species. Some crop injury may occur if Banvel is applied within 45 days of planting. Refer to the Banvel and 2,4-D labels for cropping restrictions and other use instructions.

Rascal® plus Goal Tank Mixtures

This product alone or in tank mixtures with Goal plus 0.5 to 1 percent nonionic surfactant by total spray volume will provide control of those weeds listed below.

Make applications when weeds are actively growing and at the recommended stages of growth. Avoid spraying when weeds are subject to moisture stress, when dust is on the foliage or when straw canopy covers the weeds.

Rascal 12 fluid oz	/acre	Rascal 16 fluid oz/acri	2
Wheat Barley Bluegrass. annual Barnyardgrass Rye	18"+ 12" 6" 6" 6"	Annual grasses at left plus: Ryegrass. annual Chickweed Groundsel Marestail Rocket, London Shepherdspurse Crabgrass Johnsongrass. seedling Lambsquarters Oats, wild Pigweed, redroot Mustards	6" 6" 6" 6" 12" 12" 12" 12" 12" 12" 12" 12" 12" 12

NOTE: Use 32 fluid ounces of this product per acre where heavy weed densities exist.

Rascal 12 fluid oz/acre + GOAL** 2 to 4 fluid oz/acre		Rascal 16 fluid 02 + GOAL** 2 to 4 fluid	-
Annual grasses above pl	uS:	Annual weeds above pl	us:
Cheeseweed.		Cheeseweed,	
common	3"	common	6"
Chickweed	3"	Groundsel	6"
Groundsel	3"	Chickweed	12"
Rocket, London	6"	Rocket, London	12"
Shepherdspurse	6~	Shepherdspurse	12"

NDTE: Use 32 fluid ounces of this product per acre in mixtures with 2 to 4 fluid ounces of Goal per acre where heavy weed densities exist.

*Maximum height or length in inches.

**Use the higher rate of Goal when weeds approach maximum recommended height or stands are dense.

These recommended tank mixtures may be applied using ground or aerial spray equipment. Refer to the "WEEDS CONTROLLED" section of this label for specific rates and instructions.

ECOFARMING SYSTEMS

The recommendations made in this section are not registered for use in California.

The Ecofarming System consists of the following rotation: winter wheat, corn/sorghum, ecofallow.

Use the following tank mixtures for control of emerged annual weeds before planting corn or sorghum in the Ecofarming System.

	Rascal® at 16 to 20 fluid ounces per acre	•
•	ptus 2,4-D.at 0.375 to 0.5 pound a.i. per acre	•
•	plus Atrazine at 0.75 to 1 pound a.i. per acre	-
•	plus Lasso® at 2.5 to 3 quarts per acre	•
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The above tank mixture-should be applied in 28-0-0 or 32-0-0 liquid fertilizer carrier at 20 to 30 gallons per acre. The liquid fertilizer may be diluted with water to achieve the desired carrier volume.

WEEDS CONTROLLED - The following weeds, up to a maximum height of 4 inches, will be controlled:

Brome, downy Bromus tectorum Lettuce, prickly Lactuca serriola

Cheat

Pigweed, redroot Amaranthus retroflexus

Foxtail, green Setaria viridis

Bromus secalinus

Thistle, Russian Salsola kali

Foxtail, yellow Setaria lutescens Wheat, volunteer Triticum aestivum

Kochia*

Kachia scoparia

*For improved control of kochia, add 4 fluid ounces per acre (0.125 pound a.i. per acre) of Banvel to the above tank mixture.

Risk of crop injury from 2,4-0 or Banvel can be reduced by applying this treatment 7 to 14 days before planting.

Rejer to the tabel booklet for Lasso® herbicide for preemergence weed control achieved by this tank mixture.

Refer to the specific product labels for crop rotation restrictions and cautionary statements for all products used in these tank mixtures.

AID TO TILLAGE

This product, when used in conjunction with preplant tillage practices, will provide control of downy brome, cheat, volunteer wheat, tansy mustard and foxtail. Apply 8 fluid ounces of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. Make applications when weeds are actively growing and before they are 6 inches in height. Application must be followed by conventional tillage practices no later than 15 days after trealment

and before regrowth occurs. Allow at least 1 day after application before tillage. Tank mixtures with residual herbicides may result in

POSTHARVEST GRAIN SORGHUM, SORGHUM REGROWTH CONTROL

This product may be applied to grain sorghum (mile) stubble following harvest to suppress or control regrowth. Apply 1 quart of this product per acre for control, or 1.5 pints of this product per acre for suppression. Use 0.5 percent nonionic surfactant in 3 to 10 gallons of spray solution per acre.

PASTURES

Apply this product prior to planting forage grasses and legumes.

Pasture of Hay Crop Renovation-When applied as a broadcast spray, this product controls the annual and perennial weeds listed in this label prior to planting forage grasses or legumes. Remove domestic livestock before application and wait 8 weeks after application before grazing or harvesting.

Spot Treatment-When applied as a spot treatment as recommended, this product controls annual and perennial weeds listed in this label which are growing in pastures, forage grasses and forage legumes composed of bahiagrass, bermudagrass, bluegrass, brome, fescue, orchardgrass, ryegrass, timothy, wheatgrass, alfalfa or clover.

Wiper Application-When applied as directed, this product controls or suppresses the weeds listed under "WIPER APPLICATORS" in the "SELECTIVE EQUIPMENT" section of this label.

For spot treatment and wiper application, apply in areas where the movement of domestic livestock can be controlled. No more than onetenth of any acre should be treated at one time. Further applications may be made in the same area at 30-day intervals. Remove domestic livestock before application and wait 14 days after application before grazing livestock or harvesting.

SUGARCANE

When applied as directed for "CROPPING SYSTEMS", under the conditions described, this product controls those emerged annual and perennial weeds listed on this label growing in or around sugarcane or in fields prior to the emergence of plant cane. This product will also control undesirable sugarcane.

NOTE: Where repeat treatments are necessary, do not exceed a total of 10.5 quarts of this product per acre per year. Do not apply to vegetation in or around ditches, canals or ponds containing water to be used for irrigation.

Broadcast Treatment—Apply this product in 10 to 40 gallons of water per acre on emerged weeds prior to the emergence of plant cane.

For specific rates of application and instructions for control of various annual and perennial weeds, see the "WEEDS CONTROLLED" section of this label.

For removal of last stubble or ration cane, apply 4 to 5 quarts of this product in 10 to 40 gallons of water per acre to new growth having at least 7 or more new leaves. Allow 7 or more days after application before tillage.

Spot Treatment in or Around Sugarcane Fields—For dilution and rates of application using hand-held equipment, see "MIXING. ADDITIVES and APPLICATION INSTRUCTIONS" and "WEEDS CONTROLLED" sections of this label.

For control of volunteer or diseased sugarcane, make a 1 percent solution of this product in water and spray to wet the foliage of vegetation to be controlled.

NOTE: When spraying volunteer or diseased sugarcane, the plants should have at least 7 new leaves.

Avoid spray contact with healthy cane plants since severe damage or destruction may result.

Do not feed or graze treated sugarcane forage following application.

CONSERVATION TILLAGE. MINIMUM TILLAGE AND NO-TILL SYSTEMS CORN AND SOYBEANS Tank Mixtures

The recommendations made in this section are not registered for use in California.

When applied as recommended under the conditions described, the tank mixtures listed in this section control many emerged weeds, and give preemergence control of many annual weeds where corn or soybeans will be planted directly into a cover crop, established sod or inprevious crop residues.

Refer to specific product labels for crop rotation-restrictions and cautionary statements of all products used in these tank mixtures. For mixing instructions, see the "MIXING, ADDITIVES and APPLICATION INSTRUCTIONS" section of this label.

Apply these tank mixtures in 10 to 20 gallons of water or 10 to 60 gallons of nitrogen solution per acre before, during or after planting. Do not apply these mixtures after crop emergence.

When tank mixing with residual herbicides, add an agriculturally approved nonionic surfactant at 0.5 to 1 percent by volume of spray solution. The addition of 1 to 2 percent dry ammonium sulfate by weight may increase the performance of this product.

NOTE: When using these tank mixtures, do not exceed 4 quarts of this product per acre.

For residual control, this product may be tank-mixed with the following herbicides or combination of herbicides:

ATRAZINE LASSO/ALACHLOR CYANAZINE LARIAT® SIMAZINE BULLET® PROWL™ DUALTM MICRO-TECH® BICEPIN

for improved burndown, this product may be tank-mixed with 2,4-D or dicamba. Applications of 2.4-D or dicamba must be made at least 7 days prior to planting corn. See the "WEEDS CONTROLLED" section for specific rate information.

SOYBEANS

For residual control, this product may be tank-mixed with the following herbicides or combination of herbicides: LOROXIN PLUS

CANOPYTH PREVIEW COMMAND_{IM} PROWL TURBOTH DUAL GEMINITH SCEPTERIM LASSO/ALACHLOR sencorth LEXONETM SQUADRON™ PURSUIT PLUS^{IM} FINAKON PURSUIT™ MICRO-TECH®

For improved burndown, this product may be tank-mixed with the

following herbicides:

2,4-D*

*See the label for 2,4-D for intervals between application and planting.

CORN AND SOYBEANS

Annual Weeds-For difficult-to-control weeds such as fall panicum. barnyardgrass, crabgrass, shattercane and broadleaf signalgrass up to 2 inches tall, and Pennsylvania smartweed up to 6 inches tall. apply this product at 2 pints per acre in these tank mixtures. For other labeled annual weeds, apply 1 to 1.5 pints of this product per acre when weeds are less than 6 inches tall, and 2 to 3 pints when weeds are over 6 inches talk. For a complete list of annual weeds controlled, see the "WEEDS CONTROLLED" section of this label.

Perennial Weeds—At normal application times in minimum tillage systems, perennial weeds may not be at the proper stage of growth for control. See the "WEEDS CONTROLLED" section of this label for the proper stage of growth for perennial weeds.

Use of 2 to 4 quarts of this product per acre in the tank mixtures mentioned above, under these conditions provides top kill and reduces competition from many emerged perennial grass and broadleaf weeds. For emerged perennial weeds controlled, see the "WEEDS CONTROLLED" section of this label.

To obtain the desired stage of growth, it may be necessary to apply this product alone in the late summer or fall and then follow with a label-approved, seedling weed-control program at planting

USE OF THESE TANK MIXTURES FOR BERMUDAGRASS OR JOHN-SONGRASS CONTROL IN MINIMUM TILLAGE SYSTEMS IS NOT REC-OMMENDED. For bermudagrass control, follow the instructions under "CONTROL OF PERENNIAL WEEDS" section of this label and then use a label-approved, seedling weed-control program in a minimum tillage or conventional tillage system. For Johnsongrass control, follow instructions under "CONTROL OF PERENNIAL WEEDS" section of this label, and then use a label-approved, seedling weed-control program with conventional tillage.

PREHARVEST APPLICATIONS

When applied as directed under the conditions described, this product controls annual and perennial weeds listed on this label prior to the harvest of cotton, soybeans, grain sorghum (mile), and wheat.

For specific rates and application instructions for control of various annual and perennial weeds, see the "WEEDS CONTROLLED" section

This product may be applied by both ground and aerial application equipment. DO NOT APPLY MORE THAN 1 QUART PER ACRE OF THIS PRODUCT BY AIR. See the "APPLICATION EQUIPMENT AND TECH-NIOUES" section of this label for instructions for ground and aerial

NOTE: Do not apply to crops grown for seed. Reduction in germination or vigot may occur.

The use of this product for preharvest grain sorghum (mile) is not registered in California.

SOYBEANS

Apply after pods have set and lost all green color. Allow a minimum of 7 days between application and harvest of soybeans. Care should be taken to avoid excessive seed shatter loss due to ground application

Do not graze or harvest treated crop for livestock feed within 25 days

of last preharvest application. DO NOT APPLY MORE THAN 6 QUARTS PER ACRE OF THIS PRODUCT FOR PREHARVEST APPLICATIONS.

COTTON

Broadcast Applications —This product may be applied using either aerial or ground spray equipment. For ground applications with broadcast equipment, apply this product in 10 to 20 gallons of water per acre. For aerial applications, apply this product in 3 to 10 gallons of water per acre.

This product provides weed control and cotton regrowth inhibition when applied prior to the harvest of cotton. Apply 1 to 2 quarts of this product in 3 to 10 gallons of water per acre for cetton regrowth inhibition. Do not apply more than 2 quarts of this product per acre for preharvest applications. THE USE OF ADDITIVES FOR PREHARVEST APPLICATION TO COTTON IS PROHIBITED.

This product may be tank mixed with DEFTM 6. FolexTM, or PrepTM to provide additional enhancement of cotton leaf drop.

Allow a minimum of 7 days between application and harvest of conon.

Apply after sufficient bolls have developed to produce the desired yield of cotton. Applications made prior to this time could affect maximum yield potential.

Do not feed or graze treated cotton forage or hay following preharvest

GRAIN SORGHUM (MILO)

Make applications at 30% grain moisture or less and at least 7 days

Apply up to 2 quarts of this product per acre.

Apply after the hard-dough stage of grain (30% or less grain moisture) and at least 7 days prior to harvest.

DO NOT APPLY MORE THAN I QUART PER ACRE OF THIS PRODUCT FOR PREHARVEST APPLICATIONS TO WHEAT.

TREE AND VINE CROPS

This product is recommended for weed control in established groves, vineyards, and orchards, or for site preparation prior to transplanting crops listed in this section. Applications may be made with boom equipment, CDA, shielded sprayers, hand-held and high-volume wands, lances, orchard guns or with wiper applicator equipment except as directed in this section. See the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label for specific information on use of equipment.

When applying this product, refer to the "WEEDS CONTROLLED" section of this label and to specific recommendations in this section for rates to be used.

Repeat treatments may be necessary to control weeds originating from underground parts of untreated weeds or from seeds. This product does not provide residual weed control. For subsequent weed control, use repealed applications of this product. Do not apply more than 10.6 quarts of this product per acre per year.

EXTREME CARE MUST BE EXERCISED TO AVOID CONTACT OF HERBI-CIDE SOLUTION, SPRAY, DRIFT OR MIST WITH FOLIAGE OR GREEN BARK OF TRUNK, BRANCHES, SUCKERS, FRUIT OR OTHER PARTS OF TREES OR VINES, CONTACT OF THIS PRODUCT WITH OTHER THAN MATURED BROWN BARK CAN RESULT IN SERIOUS CROP DAMAGE. AVOID PAINTING OUT STUMPS WITH THIS PRODUCT AS INJURY RESULTING FROM ROOT GRAFTING MAY OCCUR IN ADJACENT TREES.

Reduced control may result when applications are made to annual or perennial weeds that have been mowed. grazed or cut and have not been allowed to regrow to the recommended stage for treatment.

For specific rates of applications and instructions, see the "WEEDS CONTROLLED" section of this label, and to specific recommendations which follow.

MIDDLES MANAGEMENT

FOR ANNUAL WEEDS IN MIDDLES BETWEEN ROWS OF TREE AND VINE CROPS

For citrus crops, treat uniformly between trees.

RASCAL®

RASCAL plus GOAL

This product alone or in mixtures with Goal will control or suppress the annual weeds listed below.

Apply the recommended rates of this product, either alone or in mixtures with Goal, plus 0.5 to 1 percent nonionic surfactant by spray volume in 3 to 10 gallons of water per acre. Apply when weeds are actively growing and less than $\boldsymbol{\theta}$ inches in height or diameter. If weeds are under drought stress, irrigate prior to application. Reduced control may occur if weeds have been mowed prior to application. Up to 48 fluid ounces per acre of this product may be used to control weeds, which have been mowed, are stressed or are growing in dense populations.

WEED SPECIES	MAXIMUM HEIGHT/ DIAMETER (INCHES)	RATE PE RASCAL® (FLUID OUNCES)	R ACRE GOAL (FLUID OUNCES)
Barley Hordeum vulgare	6	8	_
Biuegrass, annual <i>Poa annua</i>]		
Barnyardgrass Echinochloa crus-galli	6	12	
Chickweed, common Stellaria media	<u> </u>		
Red Maids Calandrinia ciliata] 		

WEED SPECIES	MAXIMUM HEIGHT/ DIAMETER (INCHES)	RATE PER ACRE RASCAL® GOAL (FLUID (FLUID OUNCES) OUNCES)
Crabgrass Digitaria spp.	6	16 —
Fleabane, hairy Conyza bonariensis		0R
Groundsel, common Senecio vulgaris		16 to 32 + 4 to 16**
Junglerice Echinochloa colonum		•
Lambsquarters, common Chenopodium album		
Pigweed, redroot Amaranthus retroflexus		
Rocket, London Sisymbrium irio		
Ryegrass, common Lalium multiflorum		
Shepherdspurse Capsella bursa-pastoris		
Sowthistle, annual Sonchus oleraceus		
Cheeseweed, common Malva spp.	3	12 to 32 ÷ 4 to 16
Cheeseweed, common Maiva spp.	6	16 to 32 + 4 to 16

Filaree*	
Erodium spp.	
Horseweed/Marestail Conyza canadensis	
Nettle, stinging Unica dioica	
Purselane, common* Purtulaca oleracea	

^{*}Suppression only.

STRIPS

FOR ANNUAL AND PERENNIAL WEEDS IN STRIPS OF TREE AND VINE CROPS

TANK MIXTURES WITH RESIDUAL HERBICIDES When applied as a tank mixture, this product provides control of the emerged annual weeds and control or suppression of emerged peren-nial weeds listed in this label. The following residual herbicides will provide preemergence control of those weeds listed in the individual

RASCAL® plus GOAL ZXL RASCAL plus KARMEXTH DF RASCAL plus KROVAR I RASCAL plus KROVAR II RASCAL plus SIMAZINE, PRINCEP CALIBER 90 RASCAL plus SIMAZINE 4L RASCAL plus SIMAZINE BOW

^{**}The mixture of this product plus Goal is recommended when weeds, are stressed or growing in dense populations.

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RASCAL plus GOAL 2XL plus SURFLAN (AS or 75W) RASCAL plus GOAL 2XL plus SIMAZINE

plus SURFLAN (AS or 75W)

RASCAL plus SOLICAM™ 80DF RASCAL plus SURFLAN AS RASCAL plus SURFLAN 75W RASCAL plus SIMAZINE

(80W, or 4L, or PRINCEP CALIBER 90)

RASCAL plus GOAL 2XL plus SURFLAN (AS or 75W) plus SIMAZINE (80W, 4L, OF PRINCEP CALIBER 90)

Do not apply these tank mixtures in Puerto Rico.

When tank-mixing with residual herbicides, add an agriculturally approved nomionic surfactant at 0.5 to 1 percent by volume of spray

Refer to the individual product labels for specific crops, rates, geographical restrictions and precautionary statements.

Read and carefully observe the label claims, cautionary statements, rates and all other information on the labels of all products.

RECOMMENDED RATES

Annual Weeds—Apply 1 to 5 quarts per acre of this product in these tank mixtures. Use rates at the higher end of the recommended range when weeds are stressed, growing in dense populations or are greater than 12 inches tall.

Perennial Weeds—Apply 1 pint to 5 quarts per acre of this product in these lank mixtures to control or suppress perennial weeds. Follow the recommendations in the "WEEDS CONTROLLED" section of this label for stage of growth and application rates for specific perennial weeds.

RASCAL® plus GOAL plus SIMAZINE/SURFLAN

This product plus low rates of Goal in 3-way or 4-way mixtures with simazine and/or Surllan will provide posternergence control of the

Refer to the individual simazine and Surflan labels for preemergence rates, weeds controlled, precautionary statements and other impor-

Apply these tank mixtures in 3 to 40 gallons of water. Add 0.5 to 1 percent nonionic surfactant by total spray volume to the spray solution.

Apply 1 to 5 quarts per acre of this product plus 4 to 48 fluid ounces per acre of Goal plus labeled rates of simazine and/or Surlian to con-

Barley, wild Hordeum leporinum

Bluegrass, annual Poa annua

Cheeseweed, common Malva spp.

Chickweed, common Stellaria media

Filaree* Erodium spp.

Fleabane, hairy Conyza bonanensis

Groundsel, common Senecio vulgaris

Horseweed/Marestail Conyza canadensis

Mettle, stinging Urtica dioica

Pineappleweed

Matricaria matricariodes Rocket, London

Sisymbrium irio Shepherdspurse

Capsella bursa-pastoris

Sowthistle, annual Sanchus oleraceus *Use a minimum of 1.5 quarts of this product in these mixtures.

NOTE: This recommendation does not preclude the use of Goal in these mixtures at higher, labeled rates for preemergence weed control.

PERENNIAL GRASS SUPPRESSION ORCHARD FLOORS

When applied as directed, this product will suppress vegetative growth as indicated below.

This product will provide significant inhibition of seedhead emergence and will suppress vegetative growth for a period of approximately 45 days with a single application and approximately 120 days with sequential applications. Apply this product 1 to 2 weeks after full green-up or after mowing to a uniform height of 3 to 4 inches. Applications must be made prior to seedhead emergence. Apply 6 fluid ounces of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 10 to 25 gallons of water per acre.

Sequential applications of this product plus nonionic surfactant may be made at approximately 45-day intervals to extend the period of seedhead and vegetative growth suppression. For continued seedhead suppression, sequential applications must be made prior to seedhead emergence. Apply no more than 2 sequential applications per year. As a first sequential application, apply 4 fluid ounces of this product plus nonionic surfactant. A second sequential application of 2 to 4 fluid ounces may be made approximately 45 days after the last application.

For burndown, apply 1 to 2 quarts of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 20 gallons of water per acre. Use 1 quart of this product in 3 to 20 gallons of water per acre east of the Rocky Mountains. Use 1 to 2 quarts of this product in 3 to 10 gallons of water per acre west of the Rocky Mountains. Use this treatment only if reduction of the bermudagrass stand can be tolerated. When burndown is required prior to harvest, allow at least 21 days to ensure sufficient time for burndown to occur.

Suppression only (east of the Rocky Mountains)—Apply 6 to 16 fluid ounces of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 20 gallons of water per acre no sooner than I to 2 weeks after full green-up. Mowing prior to application may occur provided a minimum height of 3 inches is maintained. Rates of 6 to 10 fluid ounces of this product plus nonionic surfactant should be used in shaded conditions or where a lesser degree of suppression is desired. Sequential applications may be made when regrowth occurs and bermudagrass injury and stand reduction can be tolerated.

Suppression only (west of the Rocky Mountains)—Apply 16 fluid ounces of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre to bermudagrass up to 6 inches in height and no sooner than 1 to 2 weeks after full green-up. Mowing prior to application may occur provided a minimum height of 3 inches is maintained. Sequential applications may be made when regrowth occurs and bermudagrass injury and stand

Cool Season Grass Covers

for suppression of tall lescue, fine fescue, orchardgrass and quackgrass, apply 8 fluid ounces of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 10 to 20 gallons of water per acre. For best suppression, add ammonium sulfate to the spray softtion at a rate of 2 percent by weight or 17 pounds per 100 gailons of spray solution.

For suppression of Kentucky bluegrass covers, apply 6 fluid ounces of this product plus 0.5 to 1 percent nonionic surfactant. Do not add

For best results, mow cool-season grass covers in the spring to even their height and apply the recommended rate of this product 3 to 4 days after mowing. Avoid treating cool season grass covers under poor growing conditions, such as drought stress (drip irrigation), dis-

LOW VOLUME APPLICATION (FLORIDA AND TEXAS)

For burndown or control of the weeds listed, apply the recommended rates of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 30 gallons of water per acre. Where weed foliage is dense, use 10 to 30 gallons of water per acre.

Annual Weeds

Goatweed-Apply 2 to 3 quarts per acre of this product plus 17 pounds of ammonium sulfate per 100 gallons of water plus 0.5 to 1 percent nonionic surfactant by total spray volume. Apply in 20 to 30 gallons of water per acre when plants are actively growing. Use 2 quarts per acre when plants are less than 8 inches tall and 3 quarts per acre when plants are greater than 8 inches. If goatweed is greater than 8 inches tall, the addition of Krovar II or Karmex may improve control. Use labeled rates for these residual products.

Read and carefully observe the label claims, cautionary statements, rates and all other information on the Krovar II and Karmex labels.

Perennial Weeds

Apply when weeds are actively growing and at the growth stages listed in the "PERENNIAL WEEDS CONTROLLED" section of this label. If perennial weeds are mowed, allow weeds to regrow to the recommended stage of growth.

S = Suppression PC = Partial control		C = Cont	troi	
WEED SPECIES	Rascal® RATE PER AG			5 qts
Bermudagrass	В.		PC	С
Guineagrass Texas and Florida Ridge Florida Flatwoods	8	C B	C C	C C
Paragrass Torpedograss	B S	C	PC	c

TREE CROPS

Citrus*****; calamondin, chironja, citron, grapefruit, kumquat. lemon, time, mandarin orange, orange, pummelo, tangelo, tangerine,

Nuts**: almond, beechnut, Brazil nut, butternut, cashew, chestnuts, chinquapin, filbert, hazel nut, hickory nut, macadamia, pecan, pista-

Pome Fruit *****: apple, loquat, mayhaw, pear, quince.

Stone Fruit***: apricots, cherries, nectarines, olives, peaches,

For cherries, any application equipment listed to this section may be

For citron and clives, apply as a directed spray only.

Any application equipment listed in this section may be used in apricots, nectarines, peaches and plums/prunes growing in Arizona. California, Colorado, Idaho, Kansas, Kentucky, New Jersey, North Dakota, Oklahoma, Gregon, Texas, Utah and Washington, except for peaches grown in the states specified in the following paragraph. In all other states use wiper equipment only.

For PEACHES grown in Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina and Tennessee only, apply with a shielded boom sprayer or shielded wiper applicator, which prevents any contact of this product with the foliage or bark of trees. Apply no later than 90 days after first bloom. Applications made after this time may result in severe damage. Remove suckers and low-hanging limbs at least 10 days prior to application. Avoid applications near trees with recent pruning wounds or other mechanical injury. Apply only near trees which have been planted in the orchard for 2 or more years. EXTREME CARE MUST BE TAKEN TO ENSURE NO PART OF THE PEACH TREE IS CONTACTED.

THE REPORT OF THE PROPERTY OF

Tropical Fruit: acerola*, atemoya*, avocado*, banana***** breadfruit*, canistel*, carambola*, cherimoya*, cocoa beans*, coflee****, dates*, figs*, genip*, guava****, jabolicaba*, jackfruit*, longan*, lychee*, mango*, mayhaw*, papaya*****, passion fruit*, persimmons*, plantains****, pomegranate*, sapodilla*, sapote*, soursop*, sugar apple*, tamarind*, tea*, in coffee and banana, delay applications 3 months after transplanting to allow the new coffee or banana plant to become established.

- *Allow a minimum of 14 days between last application and
- **Allow a minimum of 3 days between last application and harvest of these crops, except pistachio nuts. For pistachio nuts allow a minimum of 21 days between last application and
- ***Allow a minimum of 17 days between last application and
- **** Allow a minimum of 28 days between last application and
- **** Allow a minimum of 1 day between last application and harvest.

VINE CROPS

Grapes: Any variety of table, wine or raisin grape may be treated with

any equipment listed in this section. Applications should not be made when green shoots, canes, or foliage

Allow a minimum of 14 days between last application and harvest. are in the spray zone. In the northeast and Great Lakes regions, applications must be made prior to the end of bloom stage of grapes to avoid injury.

Bullet, Lasso, Micro-Tech, Partner, Rascal, and Lariat are registered trademarks of Monsanto Company.

™Oust, Krovar, Escort, Telar, Canopy, Gemini, Lexone, Lorox Plus, Diuron, Preview and Karmex are trademarks of E.I. duPont de Nemours and Company.

TMDual, Bicep, Princep and-Caliber are trademarks of Novartis Corporation.

TMSurfian is a trademark of DowElanco Products Company.

^{1M}Banvel and Solicam are trademarks of Sandoz, Inc.

™Ronstar, Folex and Prep are trademarks of Rhone-Poulenc, Inc.

™Goal is a trademark of Rohm and Haas Company.

TMSencor and Turbo are trademarks of Bayer AG.

Prowl, Pursuit, Pursuit Plus, Scepter and Squadron are trademarks of American Cyanamid Company.

Command is a trademark of FMC Corporation.

TMDEF is a trademark of Mobay Chemical Company.

™Microfoit is a trademark of Union Carbide Agricultural Products.

IMThru-Valve is a trademark of Waldrum Specialties, Inc.

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This product is protected by U.S. Patent No. 4,405,531. Other patents pending. No license granted under any non-U.S. patent(s).

EPA Reg. No. 524-445

2115171-1/53

In case of an emergency involving this product.
Call Collect, day or night, (314) 594-4000.

Rascal is a registered trademark of Mansanto Company.

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MONSANTO COMPANY ST. LOUIS, MISSOURI 63167 U.S.A. This product is protected by U.S. Patent No. 4,405,531. Other patents pending. No license granted under any non-U.S. patent(s).

EPA Reg. No. 524-445

21151V1-1/53

In case of an emergency involving this product, Call Collect, day or night, (314) 694-4000.

Rascal is a registered trademark of Monsanto Company.

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MONSANTO COMPANY ST. LOUIS, MISSOURI 53167 U.S.A.

Monsanto

Monsanto Company Suite 1100 700 14th Street, N.W. Washington, D.C. 20005

January 9, 1998

Hand Delivered

Office of Pesticide Programs
Document Processing Center (Final Printed Labeling)
U.S. Environmental Protection Agency
Room 266A, Crystal Mall #2
1921 Jefferson Davis Highway
Arlington, VA 22202

Attention:

Mr. James A. Tompkins (7505C)

Team Leader (25)

Subject:

4

Silhouette® Herbicide (EPA Reg. No. 524-445-1381)

Final Printed Label Booklets

Responsive to Notification dated 28-Oct-97

Dear Mr. Tompkins:

On 28-Oct-97, Monsanto notified the Agency that Cenex / Land O' Lakes Agronomy Co. will provide growers with a new distributor product under EPA Reg. No. 524-445 using brand name "Silhouette Herbicide". Although Monsanto realizes that the Agency does not require submission of labeling for distributor products, herein we provide three (3) copies of the final printed booklet labeling should you desire copies in your files.

If you have any questions on this matter please feel free to contact me through Dr. Russell P. Schneider or directly at 314-694-1582.

Sincerely,

Stophen J. Wratten

Manager, Registrations

cc:

R. P. Schneider

Nancy Zelmer. Cenex (letter only)

Plea ad instructions on reverse before completing form. United States Environmental Protection Ag Washington, DC 20460		Registration Amendment Other	255258
	Posticido Sastica	_	T00500
	Pesticide - Section 2. EPA Product Manager		oposed Classification
1. Company/Product Number 524-445-1381	Mr. James Tom		· 🗆
4. Company/Product (Name) Silhouette® Herbicide	PM# 25	<u> </u>	None Hestricted
5. Name and Address of Applicant (Include ZIP Code) Monsanto Company 700 14th Street, N.W., Suite 1100 Washington, DC 20005 Check if this is a new address	6. Expedited Review. (b)(i), my product is sim to: EPA Reg. No. Product Name	nilar or identical in con	mposition and labeling
Se	ction - II		
Amendment - Explain below. Resubmission in response to Agency letter dated Notification - Explain below. Explanation: Use additional page(s) if necessary. (For section I and S	Final printed labe Agency letter dat "Me Too" Applic Other - Explain b	ted ation.	
Final printed label booklets Se	ction - III		:
1. Material This Product Will Be Packaged In:	- C-l-M- Dli	To 7-16 Services	
Yes Yes No. per If "Yes" No. per	Yes No No No. per Rage wgt container	2. Type of Container Metal Plastic Glass Paper Other (5	specifγ)
3. Location of Net Contents Information 4. Size(s) Retail Con	tainer 5. Lo	ocation of Label Direction	ons
Label Container	<u> </u>	On Label On Labeling accon	npanying product
6. Manner in Which Label is Affixed to Product Lithograph Paper glued Stenciled	Other		
Se	ction - IV		
1. Contact Point (Complete items directly below for identification of in	lividual to be contacted, if ne	cessary, to process this	a application.)
Name Dr./ Russell P. Schneider	Agricultural Regul Director <u>*</u>	a Lion	783-2460
Certification I certify that the statements I have made on this form and all att I acknowledge that any knowingly false or misleading statement both under applicable law.			6. Date Application Received Stamped)
2. Signature 3. Title	nager, Registratio	ons	
4. Typed Namy Stephen J. Wratten, Ph.D. 5. Dat	January 9, 1998	3	3/0
EPA Form 8570-1 (Rev. 8-94) Previous editions are obsolete.	White - I	EPA File Copy [original	Yellow - Applicant Cop

PAPERWORK REDUCTION ACT NOTICE and INSTRUCTIONS

PAPERWORK REDUCTION ACT NOTICE: Public reporting burden for this collection of information is estimated to average 0.65 hour per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Chief, Information Policy Branch, (2136), U.S. Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460.

INSTRUCTIONS: This form is to be used for all applications for new registration, and use reregistration, amendment, resubmission, to applications for notifications, final printed labeling, reregistration, etc. In order to process an application for a new registration submitted on this form, the following meterial must accompany the application:

- 1. Certification with Respect to Citation of Data (EPA Form 8570-29). [If not exempted by 40 CFR 152.81 (b) (4)];
- 2. Confidential Statement of Formula (EPA Form 8570-4);
- 3. Formulator's Exemption Statement (EPA Form 8570-27);
- 4. Five copies of draft labeling;
- 5. Three copies of any data submitted;
- 6. Authorization letter where applicable;
- 7. Matrices where applicable.

Submission of Labeling - Labeling should first be submitted in the form of draft labels with all applications for new registration. Such draft labels may be in the form of typed label text on 8.5 x 11 inch paper for submission or a mockup of the proposed label, if prepared for mockup, it should be constructed in a way as to facilitate storage in an 8.5 x 11 inch file. Mockup labels significantly smaller than 8.5 x 11 inches should be mounted on 8.5 x 11 inch paper for submission.

Submission of Data - Data submitted in support of this application must be submitted in accordance with PR Notice 86-5.

SPECIFIC INSTRUCTIONS: Please read the instructions listed below before completing this application. First determine the type of registration action, listed in Block A, for which you are submitting this application. For applications submitted in connection with New Registration actions, Sections I, III, and IV must be completed by the applicant. For applications submitted in connection with amended reregistration actions, resubmissions, notifications, reregistrations, etc., Sections I, II, and IV must be completed by the applicant.

Block A - Check the appropriate action for which you are submitting this form.

SECTION 1 - This section must be completed, as applicable, for all registration actions.

- 1. Company/Product Number Insert your Company Number, if one has been assigned by EPA. This number may have been assigned to you as a basic registrent, a distributor, or as an establishment. If your product is registered, insert the Product Number.
- 2. EPA Product Manager If known, fill in the name and PM number of the EPA Product Manager.
- 3. Proposed Classification Specify the proposed classification of this product,
- 4. Product Name Enter the complete product name of this pesticide as it will appear on the label. The name must be specific to this product only.
 Duplication of names is not permitted among products of the same company. Do not include any brand name or company line designations.
- 5. Name and Address of Applicant The name of the firm or person and eddress shown in your application is the person or firm to whom the registration will be issued. If you are acting in behalf of another party, you must submit authorization from that party to act for them in registration matters. An applicant not residing in the United States must have an authorized agent residing in the United States to act for them in all registration matters. The name and complete mailing address of such an agent must accompany this application.
- 6. Expedited Review FIFRA section 3 (c) 3 (B) provides for expedited review of applications for registration, or amendments to existing registrations, that are similar or identical to other posticide products that are currently registered with the EPA. In order for your application to be eligible for expedited review, you must provide us with the EPA Registration Number and product name of the product you believe is similar to or identical to your product. The product must be similar or identical in both formulation and labeled uses.

SECTION II - This section must be completed for all applications submitted to amend the registration only of a currently registered product (Amendment), for a pesubmission in response to an Agency letter, for notifications to the Agency, for the submission of final printed labeling, for reregistration and for any other action that partains to a specific EPA-registered product. This section is not to be used for a new application for registration.

Subject of submission - Check the applicable block and provide the Agency letter date if appropriate. Provide a brief explanation of the purpose(s) for the submission, such as "the addition of a site, pest or crop (specify)"; "amend the Confidential Statement of Formula by..."; "reregistration submission"; "general label revision of use directions." Attach a separate page if additional space is needed.

SECTION III (Packaging and Container Information) - This Section must be completed for all applications submitted in connection with new registration or applicable amendments.

- Type of Packaging Check the appropriate block if your product will be packaged in the indicated packaging types.
 Indicate the size of the individual packets and number per retail container.
- 2. Type of Refail Container Indicate type of container in which product will be marketed.
- 3. Location of Net Contents Indicate the location of the net contents information for your product.
- 4. Size(s) of Retail Container Specify the net contents of all retail containers for your product,
- 5. Location of Use Directions Indicate the location of the use directions for your product.
- 6. Menner in which label is affixed to product Indicated the method product label is attached to retail container.

SECTION IV (Contact Point) - This Section must be completed for all applications for Registration actions, i.e., new products registration, resubmission, "me-tm," raregistration, etc.

- 1-5. Self-explanatory.
- 6. EPA Use Only.



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Complete Directions for Use

EPA Reg. No. 524-445-1381

AVOID CONTACT WITH FOLIAGE, GREEN STEMS, EXPOSED NON-WOODY ROOTS OR FRUIT OF CROPS, DESIRABLE PLANTS AND TREES, SINCE SEVERE INJURY OR DESTRUCTION MAY RESULT.

1997-1

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Complete Directions for Use

EPA Reg. No. 524-445-1381

AVOID CONTACT WITH FOLIAGE, GREEN STEMS, EXPOSED NON-WOODY ROOTS OR FRUIT OF CROPS, DESIRABLE PLANTS AND TREES, SINCE SEVERE INJURY OR DESTRUCTION MAY RESULT.

1997-1

21149V1-1/53

Read the entire label before using this product.

Use only according to label instructions.

Read "EIMIT OF WARRANTY AND LIABILITY" before buying or using, if terms are not acceptable, return at once unopened.

REFORMULATION IS PROHIBITED. SEE INDIVIDUAL CONTAINER LABEL FOR REPACKAGING LIMITATIONS.

LIMIT OF WARRANTY AND LIABILITY

This Company warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes set forth in the Complete Directions for Use label booklet ("Directions") when used in accordance with those Directions under the conditions described therein. NO OTHER EXPRESS WARRANTY OR IMPLIED WARRANTY OF FITNESS FOR PARTICULAR PURPOSE OR MERCHANTABILITY IS MADE. This warranty is also subject to the conditions and limitations stated herein.

Buyer and all users shall promptly notify this Company of any claims whether based in contract, negligence, strict liability, other tort or otherwise.

Buyer and all users are responsible for all loss or damage from use or handling which results from conditions beyond the control of this Company, including, but not limited to, incompatibility with products other than those set forth in the Directions, application to or contact with desirable vegetation, unusual weather, weather conditions which are outside the range considered normal at the application site and for the time period when the product is applied, as well as weather conditions which are outside the application ranges set forth in the Directions, application in any manner not explicitly set forth in the Directions, moisture conditions outside the moisture range specified in the Directions, or the presence of products other than those set forth in the Directions in or on the soil, crop or treated vegetation.

THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE LIMIT OF THE LIABILITY OF THIS COMPANY OR ANY OTHER SELLER FOR ANY AND ALL LOSSES, INJURIES OR DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT (INCLUDING CLAIMS BASED IN CONTRACT, NEGLIGENCE, STRICT LIABILITY, OTHER TORT OR OTHER WISE) SHALL BE THE PURCHASE PRICE PAID BY THE USER OR BUYER FOR THE OUANTITY OF THIS PRODUCT INVOLVED, OR, AT THE ELECTION OF THIS COMPANY OR ANY OTHER SELLER, THE REPLACEMENT OF SUCH QUANTITY OR, IF NOT ACQUIRED BY PURCHASE, REPLACEMENT OF SUCH QUANTITY, IN NO EVENT SHALL THIS COMPANY OR ANY OTHER SELLER BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES.

Buyer and all users are deemed to have accepted the terms of this LIMIT OF WARRANTY AND LIABILITY which may not be varied by any verbal or written agreement.

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LIMIT OF WARRANTY AND LIABILITY	
PRECAUTIONARY STATEMENTS	
ENVIRONMENTAL HAZARDS	
INGREDIENTS	
STORAGE AND DISPOSAL	
GENERAL INFORMATION	
MOUNG INSTRUCTIONS	
APPLICATION EQUIPMENT.	
DIRECTIONS FOR USE	
WEEDS CONTROLLED	
ANNUAL WEEDS	
PERENNIAL WEEDS	
WOODY BRUSH AND TREES	
NONCROP USES	
CROPPING SYSTEMS	

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

Keep out of reach of children.

WARNING! AVISO!

Si ested no entiende la etiqueta, busque a alguien para que se la explique a usted en detalla. (If you do not understand the label, find someone to explain it to you in detail.)

CAUSES SUBSTANTIAL BUT TEMPORARY EYE INJURY.

HARMFUL IF SWALLOWED OR INHALED.

Do not get in eyes or on clothing.

Avoid breathing vapor or spray mist.

FIRST AID: IF IN EYES, immediately hold eyelids open and flush with plenty of water for at least 15 minutes. Get medical attention.

IF INHALED, remove individual to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. Get medical attention.

IF SWALLOWED, this product will cause gastrointestinal tract irritation. Immediately dilute by swallowing water or milk. Get medical attention. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON.

Personal Protective Equipment (PPE)

Applicators and other handlers must wear: long-sleeved shirt and long pants, shoes plus socks, and protective eyewear. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d) (4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

User Satety Recommendations:

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and out on clean clothing.

In case of an emergency involving this product, Call Collect, day or right, (314) 694-4000.

Environmental Hazards

Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters.

Physical or Chemical Hazards

Spray solutions of this product should be mixed, stored and applied using only stainless steel, aluminum, fiberglass, plastic or plastic-lined steel containers.

DO NOT MIX, STORE DR APPLY THIS PRODUCT OR SPRAY SOLUTIONS OF THIS PRODUCT IN GALVANIZED STEEL OR UNLINED STEEL (EXCEPT STAINLESS STEEL) CONTAINERS OR SPRAY TANKS. This product or spray solutions of this product react with such containers and tanks to produce hydrogen gas which may form a highly combustible gas mixture. This gas mixture could flash or explode, causing serious personal injury, if ignited by open flame, spark, welder's torch, lighted cigarette or other ignition source.

ACTIVE INGREDIENT:

*Glyphosate, N-(phosphonomethyl)glycine, in the form of its	
isopropylamine selt	41.0%
INERT INGREDIENTS:	59.0%
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*Contains 480 grams per litre or 4 pounds per U.S. gallon of the active ingredient glyphosete, in the form of its isopropytamine salt. Equivalent to 356 grams per litre or 3 pounds per U.S. gallon of the acid, glyphosate.

This product is protected by 0.5. Patent No. 4.405,531. Other patents pending. No license granted under any non-0.5, patent(s).

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in any manner inconsistent with its labeling. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulations.

Agricultural Use Requirements

Use this product only in accordance with its labeling and with the Worker Protection Standard. 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, torests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontainination, notification, and emergency assistance, it also contains specific instructions and exceptions pertaining to the statements on this tabel about personal protective equipment (PPE) and restricted entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is: coveralls, waterproof gloves, shoes plus socks, and protective evewear.

Non-Agricultural Use Requirements

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries or greenhouses.

Keep people and pets off treated areas until spray solution has dried to prevent transfer of this product onto desirable vegetation.

For more product information, call your nearest Cenex/Land O' Lakes Company representative.

Storage and Disposat

Do not contaminate water, foodstuffs, feed or seed by storage or disposal.

See container label for STORAGE AND DISPOSAL instructions.

GENERAL INFORMATION

OD NOT APPLY THIS PRODUCT USING AERIAL SPRAY EQUIPMENT EXCEPT UNDER CONDITIONS AS SPECIFIED WITHIN THIS LABEL.

This product, a water soluble figuid, mixes readily with water to be applied as a foliar spray for the control or destruction of most herbaceous plants. It may be applied through most standard industrial or field-type sprayers after dilution and thorough mixing with water in accordance with label instructions.

This product moves through the plant from the point of foliage contact to and into the root system. Visible effects on most annual weeds occur within 2 to 4 days, but on most perennial weeds may not occur for 7 days or more. Extremely cool or cloudy weather following treatment may slow activity of this product and delay visual effects of control. Visible effects are a gradual wilting and yellowing of the plant which advances to complete browning of above-ground growth and deterioration of underground plant parts.

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Unless otherwise specified on this label, delay application until vegetation has emerged and reached the stages described for control of such vegetation under the "WEEDS CONTROLLEO" section of this label. Unemerged plants arising from unattached underground thizomes or root stocks of perennials will not be affected by the herbicide and will continue to grow. For this reason, best control of most perennial weeds is obtained when treatment is made at late growth stages approaching maturity.

Always use the higher rate of this product per acre within the recommended range when (1) weed growth is heavy or dense, or (2) weeds are growing in an undisturbed (noncultivated) area.

Do not treat weeds under poor growing conditions such as drought stress, disease or insect damage, as reduced weed control may result. Reduced results may also occur when treating weeds heavily covered with dust.

Reduced control may result when applications are made to annual or perennial weeds that have been mowed, grazed, or cut, and have not been allowed to regrow to the recommended stage for treatment.

Rainfall or irrigation occurring within 6 hours after application may reduce effectiveness. Beavy rainfall or irrigation within 2 hours after application may wash the chemical off the foliage and a repeat treatment may be required...

This product does not provide residual weed control. For subsequent residual weed control, follow a label-approved herbicide program. Read and carefully observe the cautionary statements and all other information appearing on the labels of all herbicides used.

Buyer and all users are responsible for all loss or damage in connection with the use or handling of mixtures of this product with berbicides or other materials that are not expressly recommended in this labeling. Mixing this product with herbicides or other materials not recommended on this label may result in reduced performance.

For best results, spray coverage should be uniform and complete. Oo not spray weed foliage to the point of runoff.

DOMESTIC ANIMALS: This product is considered to be relatively nontoxic to dogs and other domestic animals; however, ingestion of this product or large amounts of freshly sprayed vegetation may result in temporary gastrointestinal irritation (vomiting, diarrhea, colic, etc.), if such symptoms are observed, provide the animal with plenty of fluids to prevent dehydration. Call a veterinarian if symptoms persist for more than 24 hours.

ATTENTION

avoid drift, extreme care must be used when applying this product to prevent injury to desirable plants and crops.

Do not allow the herbicide solution to mist, drip, drift or splash onto desirable vegetation since minute quantities of this product can cause severe damage or destruction to the crop, plants or other areas on which treatment was not intended. The likelihood of injury occurring from the use of this product is greatest when winds are gusty or in excess of 5 miles per hour or when other conditions, including tesser wind velocities, will allow spray drift to occur. When spraying, avoid combinations of pressure and nozzle type that will result in splatter or time particles (mist) which are likely to drift. AVOID APPLYING AT EXCESSIVE SPEED OR PRESSURE.

NOTE: Use of this product in any manner not consistent with this label may result in injury to persons, animals or crops, or other unintended consequences. Keep container closed to prevent spills and contamination

MIXING, ADDITIVES AND APPLICATION INSTRUCTIONS

APPLY THESE SPRAY SOLUTIONS IN PROPERLY MAINTAINED AND CALIBRATED EQUIPMENT CAPABLE OF DELIVERING DESIRED VOLUMES. DO NOT APPLY WHEN WIND OR OTHER CONDITIONS FAVOR

DRIFT. HAND-GUN APPLICATIONS SHOULD BE PROPERLY DIRECTED TO AVOID SPRAYING DESIRABLE PLANTS. NOTE: REDUCED RESULTS MAY OCCUR IF WATER CONTAINING SOIL IS USED, SUCH AS WATER FROM PONDS AND UNLINED DITCHES.

MIXING

This product mixes readily with water. Mix spray solutions of this product as follows: Fill the mixing or spray tank with the required amount of water. Add the recommended amount of this product (see the "DIRECTIONS FOR USE" and "WEEDS CONTROLLED" sections of this label) near the end of the filling process and mix well. Use caution to avoid siphoning back into the carrier source. Use approved anti-back-siphoning devices where required by state or local regulations. During mixing and application, foaming of the spray solution may occur. To prevent or minimize foam, avoid the use of mechanical agilators, terminate by-pass and return lines at the bottom of the tank and, if needed, use an approved anti-foam or defoaming agent.

TANK MIXTURES

Always predetermine the compatibility of labeled tank mixtures of this product with water carrier by mixing small proportional quantities in advance.

Mix labeled tank mixtures of this product with water as follows:

- 1. Place a 20 to 35 mesh screen or welting basket over filling port.
- Through the screen, fill the spray tank one-half full with water and start agitation.
- If a weltable powder is used, make a slurry with the water carrier, and add it SLOVILY through the screen into the tank. Continue agitation.
- If a Howable formulation is used, premix one part flowable with one part water. Add diluted mixture SLOWLY through the screen into the tank. Continue agitation.
- If an emulsifiable concentrate formulation is used, premix one part emulsifiable concentrate with two parts water. Add diluted mixture slowly through the screen into the tank, Continue agitation.
- Continue filling the spray tank with water and add the required amount of this product near the end of the filling process.
- Where nonionic surfactant is recommended, add this to the spray tank before completing the filling process.
- Add individual formulations to the spray tank as follows: wettable powder, flowable, emulsifiable concentrate, drift control additive, water soluble liquid followed by surfactant.

Maintain good agitation at all times until the contents of the tank are sprayed. If the spray mixture is allowed to settle, thorough agitation is required to resuspend the mixture before spraying is resumed.

Keep by-pass line on or near bottom of tank to minimize foaming. Screen size in nozzle or line strainers should be no finer than 50 mesh. Carefully select proper nozzle to avoid spraying a fine mist. For best results with conventional ground application equipment, use flat fan nozzles.

Clean sprayer and parts immediately after using this product by thoroughly flushing with water.

ADDITIVES

SURFACTANTS

Nonionic surfactants which are labeled for use with herbicides may be used. Do not reduce rates of this product when adding surfactant. When adding additional surfactant, use 0.5 percent surfactant concentration (2 quarts per 100 gallons of soray solution) when using surfactants which contain at least 70 percent active ingredient or a 1 percent surfactant concentration (4 quarts per 100 gaflons of spray solution) for those surfactants containing less than 70 percent active ingredient. Read and carefully observe surfactant cautionary statements and other information appearing on the surfactant label.

AMMONIUM SULFATE

The addition of 1 to 2 percent dry ammonium sulfate by weight or 8.5 to 17 pounds per 100 gallons of water may increase the performance of this product, and this product plus 2,4-D. Banvel™ or residual herbicide tank mixtures on annual and perennial weeds. The improvement in performance may be apparent where environmental stress is a concern, Łow-quality ammonium sulfate may contain material that will not readily dissolve, which could result in nozzle tip plugging. To determine quality, perform a jar test by adding 1/3 cup of ammonium sulfate to 1 gallon of water and agitate for 1 minute. If undissolved sediment is observed, predissolve the ammonium sulfate in water and filter prior to addition to the spray tank. If armmonium sulfate is added directly to the spray tank, add slowly with agitation. Adding too quickly may clog outlet line. Ensure that ammonium sulfate is completely dissolved in the spray tank before adding herbicides or surfactant. Thoroughly rinse the spray system with clean water after use to reduce corrasion.

NOTE: The use of ammonium sulfate as an additive does not preclude the need for additional surfactant. On not use herbicide rates lower than recommended in this label.

COLORANTS OR DYES

Agriculturally-approved colorants or marking dyes may be added to this product. Colorants or dyes used in spray solutions of this product may reduce performance, especially at lower rates or dilutions. Use colorants or dyes according to the manufacturer's recommendations.

APPLICATION EQUIPMENT AND TECHNIQUES

Do not apply this product through any type of irrigation system.

This product may be applied with the following application equipment:

Aerial — Fixed Wing and Helicopter

Broadcast Spray

Controlled Oroplet Applicator (CDA)—Hand-held or boommounted applicators which produce a spray consisting of a narrow range of droplet sizes.

Hand-Held and High-Volume Spray Equipment—Knapsack and backback sprayers, pump-up pressure sprayers, handguns, handwards, mistelowers*, lances and other hand-held and motorized spray equipment used to direct the spray onto weed foliage.

*This product is not registered in California or Arizona for use in misthlowers.

Selective equipment—Recirculating sprayers, shielded sprayers and wiper applicators.

See the appropriate part of this section for specific instructions and rates of application.

AERIAL EQUIPMENT

Use the recommended rates of this herbicide in 3 to 15 gallons of water per acre unless otherwise specified on this label. See the "WEEDS CONTROLLEO" section of this label for specific rates. Unless otherwise specified, do not exceed 1 quart per acre. Aerial applications of this product may be made in annual cropping conventional tillage systems, fallow and reduced tillage systems and preharvest applications. Reter to the individual use area sections of this label for recommended volumes and application rates. FOR AERIAL APPLICATION IN CALIFORNIA, REFER TO THE FEDERAL SUPPLEMENTAL LABEL FOR AERIAL APPLICATIONS in THAT STATE FOR SPECIFIC INSTRUCTIONS, RESTRICTIONS AND REQUIREMENTS.

Avoid direct application to any body of water.

6.3

AVOID DRIFT—DO NOT APPLY DURING LOW-LEVEL INVERSION CON-DITIONS, WHEN WINDS ARE GUSTY OR UNDER ANY OTHER CONDI-TION WHICH FAVORS ORIFT. DRIFT MAY CAUSE DAMAGE TO ANY VEGETATION CONTACTED TO WHICH TREATMENT IS NOT INTENDED. TO PREVENT INJURY TO ADJACENT DESIRABLE VEGETATION, APPROPRIATE BUFFER ZONES MUST BE MAINTAINED.

 Coarse sprays are less likely to drift; therefore, do not use nozzles or nozzle configurations which dispense spray as fine spray droplets. Do not angle nozzles forward into the airstream and do not increase spray volume by increasing nozzle pressure.

Orift control additives may be used. When a drift control additive is used, read and carefully observe the cautionary statements and all other information appearing on the additive label.

Ensure uniform application—To avoid streaked, uneven or overlapped application, use appropriate marking devices.

Thoroughly wash aircraft, especially landing gear, after each day of spraying to remove residues of this product accumulated during spraying or from spills. PROLONGED EXPOSURE OF THIS PRODUCT TO UNCOATED STEEL SURFACES MAY RESULT IN CORROSION AND POSSIBLE FAILURE OF THE PART, LANDING GEAR ARE MOST SUSCEPTIBLE. The maintenance of an organic coating (paint), which meets aerospace specification MIL-C-38413, may prevent corrosion.

This product plus $\text{Oust}^{\text{TM}},$ Banvel or 2,4-0 tank mixtures may not be applied by air in California.

BROADCAST EQUIPMENT

For control of annual or perennial weeds listed on this label using broadcast equipment—Use the recommended rates of this product in 3 to 40 gallons of water per acre as a broadcast spray unless otherwise specified on this label. See the "WEEDS CONTROLLED" section of this label for specific rates. As density of weeds increases, spray volume should be increased within the recommended range to ensure complete coverage. Carefully select proper nozzle to avoid spraying a fine mist. For best results with ground application equipment, use flat fan nozzles. Check for even distribution of spray droplets.

CONTROLLED DROPLET APPLICATION (CDA)

The rate of this product applied per acre by vehicle-mounted CDA equipment must not be less than the amount recommended in this label when applied by conventional broadcast equipment. For vehicle-mounted CDA equipment, apply 3 to 15 gallons of water per acre.

For the control of labeled annual weeds with hand-held CDA units, apply a 20 percent solution of this product at a flow rate of 2 fluid ounces per minute and a walking speed of 1.5 mph (1 quart per acre). For the control of labeled perennial weeds, apply a 20 to 40 percent solution of this product at a flow rate of 2 fluid ounces per minute and a walking speed of 0.75 mph (2 to 4 quarts per acre).

Controlled droplet application equipment produces a spray pattern which is not easily visible. Extreme care must be exercised to avoid spray or drift contacting the foliage or any other green tissue of desirable vegetation, as damage or destruction may result.

HAND-HELD and HIGH-VOLUME EQUIPMENT

Use coarse sprays only.

Mix this product in clean water and apply to foliage of vegetation to be controlled. For applications made on a spray-to-wet basis, spray coverage should be uniform and complete. Do not spray to the point of manti.

For control of annual weeds listed on this label, apply a 0.5 percent solution of this product plus nonionic surfactant to weeds less than δ inches in height or runner length. Apply prior to seedhead formation in grass or bud formation in broadleaf weeds. Allow three or more days before tillage or mowing.

For annual weeds over 6 inches tall, or when not using additional surfactant, or unless otherwise specified, use a 1 percent solution. For best results, use a 2 percent solution on harder-to-control perennials, such as bermudagrass, dock, field bindweed, hemp dogbane, milk-weed and Canada thistle.

When using application methods which result in less than complete coverage, use a 5 percent solution for annual and perennial weeds and a 5 to 10 percent solution for woody brush and trees.

Prepare the desired volume of spray solution by mixing the amount of this product in water as shown in the following table:

Spray Solution

Desired	Amount of Silhovette®					
Volume	1/2%	1%	11/2%	2%	5%	10%
! Gal	2/3 OZ	11/3 02	2 01	22/3 02	5³/₂ oz	13 oz
25 Gal	1 pt	1 qt	11/2 gt	2 qt	5 q1	10 qt
100 Gal	2 qt	l gal	11/2 gal	2 gal	5 gal	10 ga

For use in knapsack sprayers, it is suggested that the recommended amount of this product be mixed with water in a larger container. Fill sprayer with the mixed solution.

■ - SELECTIVE EQUIPMENT

This product may be applied through a recirculating spray system, a shielded applicator, or a wiper applicator after dilution and thorough mixing with water to listed weeds growing in any noncrop site specified on this label and only when specifically recommended in cropping systems.

A recirculating spray system directs the spray solution onto weeds growing above desirable vegetation, while spray solution not intercepted by weeds is collected and returned to the spray tank for reuse.

A shielded applicator directs the herbicide solution onto weeds, white shielding desirable vegetation from the herbicide.

A wiper applicator applies the herbicide solution onto weeds by rubbing the weed with an absorbent material containing the herbicide solution.

AVOID CONTACT WITH DESIRABLE VEGETATION.

Contact of the herbicide solution with the desirable vegetation may result in damage or destruction. Applicators used above desired vegetation should be adjusted so that the lowest spray stream or impercontact point is at least 2 inches above the desirable vegetation. Droplets, mist, foam, or splatter of the herbicide solution settling on desirable vegetation may result in discoloration, stunting or destruction.

Applications made above the crops should be made when the weeds are a minimum of 6 inches above the desirable vegetation. Better results may be obtained when more of the weed is exposed to the herbicide solution. Weeds not contacted by the herbicide solution will not be affected. This may occur in dense clumps, severe intestations or when the height of the weeds varies so that not all weeds are contacted. In these instances, repeat treatment may be necessary.

SHIELDED APPLICATORS

When applied as directed under conditions described for shielded applicators, this product will control those weeds fisted in the "WEEDS CONTROLLED" section of this label.

Use the following equation to convert from a broadcast rate per acre to a band rate per acre.

Band width in inches Row width in inches	X	Herbicide Broadcast RATE per acre	æ	Herbicide Band RATE per acre
Band width in inches Row width in inches	X	Broadcast VOLUME of solution per acre	=	8and VOLUME of solution per acre

Use nozzles that provide uniform coverage within the treated area. Keep shields on shielded sprayers adjusted to protect desirable vegelation. EXTREME CARE MUST BE EXERCISED TO AVOID CONTACT WITH DESIRABLE VEGETATION.

For specific rates of application and instructions for control of various annual and perennial weeds, see the "WEEDS CONTROLLED" section of this label.

WIPER APPLICATORS

Wiper applicators are devices that physically wipe appropriate amounts of this product directly onto the weed.

Equipment must be designed, maintained and operated to prevent the herbicide solution from contacting desirable vegetation. Operate this equipment at ground speeds no greater than 5 mph. Performance may be improved by reducing speed in areas of heavy weed infestations to ensure adequate wiper saturation. Better results may be obtained if 2 applications are made in opposite directions.

Avoid leakage or dripping onto desirable vegetation. Adjust height of applicator to ensure adequate contact with weeds. Keep wiping surfaces clean. Be aware that, on sloping ground, the herbicide solution may migrate, causing dripping on the lower end and drying of the wicks on the upper end of a wiper applicator.

Do not use wiper equipment when weeds are wet.

Mix only the amount of solution to be used during a 1-day period, as reduced activity may result from use of leftover solutions. Clean wiper parts immediately after using this product by thoroughly flushing with water.

Do not add surfactant to the herbicide solution.

For Rope or Sponge Wick Applicators-Mix 1 gallon of this product in 2 gallons of water to prepare a 33 percent solution. Apply this solution to weeds listed in this "WIPER APPLICATORS" section.

For Porous-Plastic Applicators --- Solutions ranging from 33 to 100 percent of this product in water may be used in porous-plastic wiper applicators.

When applied as recommended under the conditions described for "WIPER APPLICATORS", this product CONTROLS the following weeds:

ANNUAL GRASSES

Corn

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Zea mays

Panicum, Texas Panicum texanum

ANNUAL BROADLEAVES

Sicklepod Cassia obtusilolia

Spanishneedles ,

Starbur, bristly Acanthospermum hispidum

Rye, common

Shattercane

Secale cereale

Sorghum bicolor

Bidens bipinnata When applied as recommended under the conditions described for "WIPER APPLICATORS", this product SUPPRESSES the following weeds:

<u>ANNUAL BROADLEAVES</u>

Beggarweed, Florida

Desmodium tortuosum

Doglennel Eupatorium capilliflorium

Pigweed, redroot Amaranthus retrollexus

Ambrosia artemisiifolia

Ragweed, common

Ragweed, giant Ambrosia trifida

Sunflower Helianthus annuus

Thistle, musk Carduus nutans

Abutilon theophrasti

PERENNIAL GRASSES

Bermudagrass
Cynodon dactylon

Smutgrass Sporobolus poiretii

Guineagrass

Panicum maximum

Vaseygrass Paspalum urvillei

Johnsongrass Sorghum halepense

PERENNIAL BROADLEAVES

Dogbane, hemp Apocynum cannabinum Nightshade, silverleaf Solanum elaeagnilolium

Milkweed Ascelepias syriaca

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Thistle, Canada Cirsium arvense

WEEDS CONTROLLED

This herbicide controls many annual and perennial grasses and broadleaf weeds.

ANNUAL WEEDS

- · Apply to actively growing grass and broadleaf weeds.
- Allow at least 3 days after treatment before tillage.
- For maximum agronomic benefit, apply when weeds are 6 inches or less in height.
- To prevent seed production, applications should be made prior to seedhead formation.
- This product does not provide residual control; therefore, delay application until maximum weed emergence. Repeat treatments may be necessary to control later germinating weeds.

LOW-VOLUME BROADCAST APPLICATION (LOW-RATE TECHNOLOGY)

When applied as directed under the conditions described, this product will control the weeds listed below when:

- Water carrier volumes of 3 to 10 gallons per acre for ground applications and 3 to 5 gallons per acre for aerial applications are recommended. (See the "AERIAL APPLICATION" section of this label for approved sites.)
- A nonionic surfactant is added at 0.5 to 1 percent by total spray volume. Use 0.5 percent surfactant concentration when using surfactants which contain at least 70 percent active ingredient or a 1 percent surfactant concentration for those surfactants containing less than 70 percent active ingredient.

NOTE

- The addition of 2 percent dry ammonium sulfate by weight or 17 pounds per 100 gallons of water may increase the performance of this product on annual weeds. The improvement in performance may be apparent where environmental stress is a concern. Refer to the "MIXING, ADDITIVES and APPLICATION INSTRUCTIONS" section of this label.
- Do not tank-mix with soil residual herbicides when using these rates unless otherwise specified.
- For weeds that have been mowed, grazed or cut, allow regrowth to occur prior to treatment.
- Refer to the "TANK MIXTURES" partion of this section for control of additional broadleaf weeds.

WEED SPECIES	MAXIMUM HEIGHT/LENGTH	RATE PER ACRE* (Fluid Ounces)
Foxtait Setaria spp.	12*	8 oz.
Barnyardgrass Echinochloa crus-galli	6" (0 to 4" (4 to 6"	12 oz. 16 oz. ¹) 24 oz. ¹)
Bluegrass, annual Poa annua		
Brome, downy** Bromus tectorum		
Mustaro, blue Chorispora tenella		
Mustard, tansy Descurainia pinnata		!
Mustard, tumble Sisymbrium altissimum		
Mustard, wild Sinapis arvensis		
Spurry, umbrella Holosteum umbellatum		
Barley Hordeum vulgare	12*	
Rye Secale cereale		
Sandbur, field Cenchrus spp.		

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Shattercane Sorghum bicolor		
Stinkgrass Eragrostis cilianensis		
Wheat friticum aestivum	18"	
Morninggfory Ipomoea spp.	2*	16 oz.
Sicklepod Cassia obtusilolia		_
Bluegrass, buibous Poa bulbosa	6.	
Cheat Bromus secalinus		
Chickweed, common Stellaria media		
Chickweed, mouseear Cerastium vulgatum		
Corn Zea mays		
Goatgrass, jointed Aegilops cylindrica		
Groundsel, common Senecio vulgaris		
Henbit Lamium amplexicaule		
Horseweed/Marestail Conyza canadensis	<u> </u>	

WEED SPECIES	MAXIMUM HEIGHT/LENGTH	RATE PER ACRE* (Fluid Ounces
Lambsquarters, common Chenopodium album	6"	16 oz.
Pennycress, field Fanweed Thlaspi arvense		
Rocket, London Sisymbrium irio		
Ryegrass, Italian Lolium multiflorum		
. Shepherdspurse Capsella bursa-pastoris	1	
Spurge, annual Euphorbia spp.		
Buttercup Ranunculus spp.	12*	
Cocklebur Xanthium strumarium		
Crabgrašs Digitaria spp.		
Owarldandelion Krigia cespitosa		
Falseflax, smallseed Camelina microcarpa		
Foxtail, Carolina Alopecurus carolinianus		

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Johnsongrass, seedling Sorghum halepense		
Oats, wild Avena fatua		
Panicum, fall Panicum dichotomiflorum		
Panicum, Texas Panicum texanum		
Pigweed, redroot Amaranthus retrollexus	1	}
Pigweed, smooth Amaranthus hybridus		j
Witchgrass Panicum capillare		
Sicklepod Cassia oblusifolia	3 to 4"	24 oz.
Signalgrass, broadleaf Brachiaria platyphylla	4*	
Horseweed/Marestail Conyza canadensis	7 to 12"	
Lambsquarters, common Chenopodium album		
Spurge, annual Euphorbia spp.		
Rice, red Oryza sativa	4*	32 oz.
Teaweed	í	
Sida spinosa	}	
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WEED SPECIES	MAXIMUM HEIGHT/LENGTH	RATE PER ACRE* (Fluid Dunces)
Sprangletop Leptochioa spp.	6*	32 oz.
Geranium, Carolina Geranium carolinianum	12"	
Goosegrass Eleusine indica		
Primrose, cutteat evening Genothera laciniate		
Pusley, Florida * Richardia scabra		
Sicklepod Cassia obtusilotia	5 to 12*	
Spanishneedles Bidens bipinnata		
Filaree Erodium spp.	12"	48 02.
Sprangletop Leptochipa spp.		

*Use these rates to control barnyardgrass in Alabama, Arkansas, Mississippi, Missouri, Louisiana and Texas for preplant breatments.

- * For those rates less than 32 fluid ounces per acre, this product at rates up to 32 fluid ounces per acre may be used where heavy weed densities exist.
- ** For control in no-till systems, use 16 fluid ounces per acre.

TANK MIXTURES

SILKOUETTE® plus BANVEL plus NONIONIC SURFACTANT

SILHOUETTE plus 2,4-D plus nonionic surfactant

DO NOT APPLY BANVEL OR 2.4-D TANK MIXTURES BY AIR IN CALIFORNIA.

These tank mixtures are recommended for use in fallow and reduced tillage areas only. Follow use directions as given in the "LOW-VOLUME BROADCAST APPLICATION" section.

This product plus Banvel or 2.4-D will control the annual grasses and broadleaf weeds listed for this product alone at the indicated heights (except 8 fluid ounces per acre applications), plus the following broadleaf weeds. For those weeds previously listed at 8 fluid ounces of this product alone per acre, use 12 fluid ounces in these tank midures.

NOTE: Refer to the specific product labels for crop rotation restrictions and cautionary statements of all products used in tank mixtures. Some crop injury may occur it Banvel is applied within 45 days of planting. The addition of Banvel in a mixture with this product may provide short-term residual control of selected weed species.

Apply 12 to 16 fluid ownces of this product plus 0.25 pound a.i. of Banvel or 0.5 pound a.i. of 2.4-D. plus 0.5 to 1 percent nonionic surfactant by total spray volume per acre to control dense populations of the following annual broadleaf weeds when less than the height indicated:

Cocklebur (12")

Xanthium strumarium

Kochia* (6*) Kochia scoparia

Lambsquarters (12°) Chenopodium album

Lettuce, prickly (6") Lactuca serriola Morningglory (6°) Ipomoea spp.

Pigweed, redroot (12°) Amaranthus retroflexus

Pigweed, smooth (12")

Amaranthus hybridus

Thistle, Russian (12*) Salsola kali

Marestail/Horseweed (6°) Conyza canadensis

*Controlled with Banvel tank mixture only.

Apply 16 fluid ounces of this product plus 0.5 pound a.i. of 2.4-0, plus 0.5 to 1 percent nonionic surfactant by total spray volume per acre to control the following annual broadleaf weeds when less than 6 inches in height.

Ragweed, common Ambrosia artemisiifolia

Smartweed, Pennsylvania Polygonum pensylvanicum

Ragweed, giant Ambrosia trifida

Velvetleaf Abutilon theophrasti

HIGH-VOLUME BROADCAST APPLICATIONS

When applied as directed under the conditions described, this product will control the weeds listed below when water carrier volumes are 10 to 40 gallons per acre for ground applications.

Apply 1 to 1.5 quarts of this product per acre plus 0.5 to 1 percent nonionic surfactant by total spray volume. Use 1 quart per acre if weeds are less than 6 inches tall and 1.5 quarts per acre if weeds are over 6 inches tall. If weeds have been mowed, grazed or cut, allow adequate time for new growth to reach recommended stages prior to treatment. These rates will also provide control of weeds listed in the "LOW-VOLUME BROADCAST APPLICATION" section.

WEED SPECIES

Balsamapple*

Momordica charantia

Bassia, fivehook Bassia hyssopifolia

Brome Bromus spp.

Fiddleneck Amsinckia spp.

Fleabane, hairy Conyza bonariensis

Fleabane Erigeron spp.

Kochia Kochia scopaiia

Lettuce, prickty Lactuca serriola

Panicum
Panicum spp.
Ragweed, common

Kagweed, common Ambrosia arlemisiilolia

Ragweed, giant Ambrosia trilida

Smartweed, Pennsylvania Polygonum pensylvanicum

Sowthistle, annual Sonchus cleraceus

Sunflower Helianthus annuus

Thistle, Russian Salsola kali Velvetleaf

Abutilon theophrasti

*Apply with hand-held equipment only.

PERENNIAL WEEDS

Apply this product as follows to control or destroy most perennial weeds:

NOTE: If weeds have been mowed or tilled, do not treat until plants have resumed active growth and have reached the recommended stages.

Repeat treatments may be necessary to control weeds regenerating from underground parts or seed. Repeat treatments must be made prior to crop emergence.

The addition of 1 to 2 percent dry ammonium sulfate by weight or 8.5 to 17 pounds per 100 gallons of water may increase the performance

of this product on perennial weeds. The improvement in performance may be apparent where environmental stress is a concern. Refer to the "MIXING, ADDITIVES and APPLICATION INSTRUCTIONS" section of this label.

When applied as recommended under the conditions described, this product WILL CONTROL the following PERENNIAL WEEDS:

Malfa

Medicago sativa

Alligatorweed*

Alternanthera philoxeroides

Anise (fennel) Foeniculum vulgare

Artichoke, Jerusalem Helianthus tuberosus

Bahiagrass

Paspalum notatum

Bentgrass Agrostis spp.

Bermudagrass

Cynodon dactylon Bermudagrass, water (knolgrass)

Paspalum distichum Bindweed, field

Convolvulus arvensis

Bluegrass, Kentucky Poa spp.

Blueweed, Texas Helianthus ciliaris

Brackenfern
Pteridium aquilinum
Fescue: ran

Festuca arundinacea

Guineagrass Pancium maximum

Horsenettle Solanum carolinense

Horseradish Armoracia rusticana

tce plant Mesembryanthemum crystallinum

Johnsongrass Socobum to long

Sorghum halepense Kikuyugrass

Pennisetum clandestinum Knapweed

Centaurea repens Lantana

Lantana camara

Lespedeza Lespedeza spp.

Milkweed Asclepias spp.

Muhly, wirestem

Muhlenbergia frondonsa

Mullein, common Verbascum thapsus

Napiergrass
Pennisetum purpureum

Bromegrass, smooth Bromus inermis

Bursage, wooflyleaf Franseria tomentosa

Canarygrass, reed Phalaris arundinacea

Typha spp.

Clover, red

Trifolium pratense

Cattail

Clover, white Infolium repens

Cogongrass Imperata cylindrica

Dallisgrass
Paspalum dilatatum

Dandelion
Tataxacum officinale
Dock, curly

Rumex crispus Dogbane, hemp Apocynum cannabinum

Fescues Festuca spp.

Solanum elaeagnifolium

Nutsedge: purple, yellow Cyperus rotundus Cyperus esculentus

Orchardgrass Dactylis glomerata

Pampasgrass Cortaderia spp.

Paragrass
Brachiaria mutica
Phragmites*

Phragmites spp. Poison hemlock Conium maculatum

Quackgrass Agropyron repens

Redvine* Brunnichia ovata

Reed, giant Arundo donax Ryegrass, perenniat

Lolium perenne

Smartweed, swamp Polygonum coccineum

Spurge, leafy* Euphorbia esula

Starthistle, yellow Centaurea solstitalis

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Sweet potato, wild*

Ipornoea pandurata

Thistle, Canada Cirsium arvense

Thistle, artichoke Cynara cardunculus

Timothy Phleum pratense

Torpedograss*
Panicum repens

*Partial Control

This product is not registered in California for use on water bermudagrass.

Trumpetcreeper*

Paspalum urvillei

Wheatgrass, western

Agropyron smithii

Vaseygrass

Velvetgrass

Holcus spp.

Campsis radicans

See "DIRECTIONS FOR USE" and "MIXING, ADDITIVES and APPLICA-TION INSTRUCTIONS" sections of this label for labeled uses and specific application instructions.

Alfalfa—Apply 1 quart of this product per acre plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gaillons of water per acre. Make application after the last hay cutting in the fall. Allow alfalfa to regrow to a height of 6 to 8 inches or more prior to treatment. Applications should be followed with deep tillage at least 7 days after treatment, but before soil freeze-up.

Alligatorweed — Apply 4 quarts of this product per acre or apply a 1.5 percent solution with hand-held equipment to provide partial control. Apply when most of the plants are in bloom. Repeat applications will be required to maintain such control.

Anise (fennel) / Poison hemiock—Apply a 1 to 2 percent solution of this product as a spray-to-wet treatment. Optimum results are obtained when plants are treated at the bud to full-bloom stage of growth. Repeat applications may be needed in succeeding years to control plants arising from seeds.

Bentgrass—For suppression in grass seed production areas. For ground applications only, apply-1.5 quarts of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 10 to 20 gallons of water per acre. Ensure entire crown area has resumed growth prior to a fall application. Bentgrass should be actively growing and have at least 3 inches of growth. Tillage prior to treatment should be avoided. Tillage 7 to 10 days after application is recommended for best results. Failure to use tillage after treatment may result in unacceptable control.

Bermudagrass—For control, apply 5 quarts of this product per acre. For partial control, apply 3 quarts per acre. Treat when bermudagrass is actively growing and seedheads are present. Retreatment may be necessary to maintain control. Allow 7 or more days after application before tillage.

Bermudagrass, water (knotgrass)—Apply 1.5 quarts of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 5 to 10 gallons of water per acre. Apply when water bermudagrass is actively growing and 12 to 18 inches in length. Allow 7 or more days before tilling, flushing or flooding the field.

Fall applications only—Apply 1 quart of this product ofus 0.5 to 1 percent nomonic surfactant by total spray volume in 5 to 10 gallons of water per acre. Fallow fields should be tilled prior to application. Apply prior to frost on water bermudagrass that is actively growing and 12 to 18 inches in length. Allow 7 or more days before tillage.

Bindweed, field—For control, apply 4 to 5 quarts of this product per acre west of the Mississippi River and 3 to 4 quarts east of the Mississippi River. Apply when the weeds are actively growing and are at or beyond full bloom. Do not treat when weed is under drought stress as good soil moisture is necessary for active growth. For best results, apply in late summer or fall. Fall treatments must be applied before a killing frost. Allow 7 or more days after application before tillage.

Also for control, apply 2 quarts of this product plus 0.5 pound a.i. of Banvel in 10 to 20 gallons of water per acre. At these rates, apply using ground application only.

The following tank mixtures with 2,4-D may be applied using aerial application equipment (except in California) in failow and reduced tillage systems only.

For suppression on irrigated agricultural land, apply 1 to 2 quarts of this product plus 1 pound a.i. of 2,4-0 in 10 to 20 gallons of water per acre with ground equipment only. Applications should be made following harvest or in fall fallow ground when the bindweed is actively growing and the majority of runners are 12 inches or more in length. The use of at least one irrigation will promote active bindweed growth.

For suppression, apply 16 fluid ounces of this product plus $0.5\,$ pound a.i. of 2,4-0 plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre for ground applications and 3 to 5 gallons of water per acre for aerial applications. Applications should be delayed until maximum emergence has occurred and when vines are between 6 to 18 inches in length.

In California only, apply 1 to 5 quarts of this product per acre. Actual rate needed for suppression or control will vary within this range depending on local conditions.

For suppression on irrigated land where annual tillage is performed, apply I quart of this product plus 0.5 to ! percent nomonic surfactant by total spray volume in 3 to 10 gallons of water per acre. Apply to actively growing bindweed that has reached a length of 12 inches or greater. Allow maximum weed emergence and runner growth. Do not treat when weeds are under drought stress as good soil moisture is necessary for active growth. Allow 3 or more days after application before tillage.

Bluegrass, Kentucky / Bromegrass, smooth / Orchardgrass— Apply 2 quarts of this product in 10 to 40 gallons of water per acre when the grasses are actively growing and most plants have reached boot-to-early seedhead stage of development. For partial control in

pasture or hay crop renovation, apply 1 to 1.5 quarts of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. Apply to actively growing plants when most have reached 4 to 12 inches in height. Allow 7 or more days after application before tillage.

Orchardgrass (sods going to no-till corn)—Apply 1 to 1.5 quarts of this product per acre plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. Apply to orchardgrass that is a minimum of 12 inches tall for spring applications and 6 inches tall for fall applications. Allow at least 3 days following application before planting. A sequential application of atrazine will be necessary for optimum results.

Blueweed, Texas--Apply 4 to 5 quarts of this product per acre west of the Mississippi River and 3 to 4 quarts per acre east of the Mississippi River. Apply when weed is actively growing and is at or

beyond tull bloom. Do not treat when weed is under drought stress as good soil moisture is necessary for active growth. New leaf development indicates active growth. For best results, apply in late summer or fall. Fall treatments must be applied before a killing trost. Allow 7 or more days after application before tillage.

Brackentern—Apply 3 to 4 quarts of this product per acre as a broadcast spray or as a 1 to 1.5 percent solution with hand-held equipment. Apply to fully expanded fronds which are at least 18

Bursage, woollyleal---For control, apply 2 quarts of this product inches long. plus 1 pint of Banvel per acre. For partial control, apply 1 quart of this product plus 1 pint of Banvel per acre. Add 0.5 to 1 percent nonionic surfactant by total spray volume and apply in 3 to 20 gallons of water per acre. Apply when plants are producing new active growth which has been initiated by moisture for at least 2 weeks and when plants are at or beyond flowering.

Canarygrass, reed / Timothy / Wheatgrass, western---Apply 2 to 3 quarts of this product per acre. For best results, apply to actively growing plants when most have reached the boot-to-head stage of growth. Allow 7 or more days after application before tillage.

Cogongrass—Apply 3 to 5 quarts of this product plus 0.5 to 1 percent nonionic surfactant in 10 to 40 gallons of water per acre. Apply when Cogongrass is at least 18 inches tall and actively growing in late summer or fall. Allow 7 or more days after application before tillage or mowing. Due to uneven stages of growth and the dense nature of vegetation preventing good spray coverage, repeat treatments may be necessary to maintain control.

Dandefion / Dock, curty—Apply 3 to 5 quarts of this product per acre when plants are actively growing and most have reached the early bud stage of growth. Allow 7 or more days after application before tillage.

Also far control, apply 16 fluid ounces of this product plus 0.5 pound a.l. 2.4-D plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre.

Dogbane, hemp—Apply 4 quarts of this product per acre. Apply when actively growing and when most weeds have reached the late bud to flower stage of growth. Following crop harvest or mowing, allow weeds to regrow to a mature stage prior to treatment. For best results, apply in late summer or fall. Allow 7 or more days after application before tillage.

For suppression, apply 16 fluid ounces of this product plus 9.5 pound a.i. of 2.4-D plus 9.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre for ground applications and 3 to 5 gallons of water per acre for aerial applications. Delay applications until maximum emergence of dogbane has occurred.

Fescue, tall—Apply 3 quarts of this product in 10 to 40 gallons of water per acre to actively growing plants when most have reached boot-to-early seedhead stage of development.

Fall applications only—Apply 1 quart of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. Apply to fescue in the fall when actively growing and plants have 6 to 12 inches of new growth. Allow 7 or more days after application before tillage. A sequential application of 1 pint per acre of this product plus nonionic surfactant will improve long-term control and control seedlings germinating after fall treatments or the following spring.

Guineagrass—Apply 3 quarts of this product per acre or use a 1 percent solution with hand-held equipment. Apply to actively growing guineagrass when most has reached at least the 7-leaf stage of growth. Ensure thorough coverage when using hand-held equipment. Allow 7 or more days after application before tillage.

Johnsongrass / Ryegrass, perennial—Apply 1 to 3 quarts of this product per acre. In annual cropping systems apply 1 to 2 quarts of this product per acre. Apply 1 quart of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. Use 2 quarts of this product when applying 10 to 40 gallons of water per acre. In noncrop, or areas where annual tillage (no-lill) is not performed, apply 2 to 3 quarts of this product in 10 to 40 gallons of water per acre. For best results, apply to actively growing plants when most have reached the boot-to-head stage of growth or in the fall prior to trost. Allow 7 or more days after application before tillage. Do not tank-mix with residual herbicides when using the 1 quart per acre rate.

For burndown of Johnsongrass, apply 1 pint per acre plus 0.5 to 1 percent nonionic surfactant in 3 to 10 gallons of water per acre before the plants reach a height of 12 inches. For this use, allow at least 3 days after treatment before tillage.

Spot treatment (partial control or suppression)—Apply a 1 percent solution of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume when Johnsongrass is 12 to 18 inches in height. Coverage should be uniform and complete.

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Kikuyugrass — Apply 2 to 3 quarts of this product per acre. Spray when most kikuyugrass is at least 8 inches in height (3- or 4-leaf stage of growth) and actively growing. Allow 3 or more days after application before tillage.

Anapweed / Horseradish—Apply 4 quarts of this product per acre. Apply when actively growing and when most weeds have reached the late bud to flower stage of growth. Following crop harvest or mowing, allow weeds to regrow to a mature stage prior to treatment. For best results, apply in late summer or fall. Allow 7 or more days after application before tillage.

Lantana—Apply this product as a 1 to 1.25 percent solution using hand-held equipment only. Apply to actively growing lantana at or beyond the bloom stage of growth. Use the higher application rate for plants that have reached the woody stage of growth. Allow 1 or more days after application before tillage.

Milkweed, common—Apply 3 quarts of this product per acre. Apply when actively growing and most of the milkweed has reached the late bud to flower stage of growth. Following small grain harvest or moving, allow milkweed to regrow to a mature stage prior to treatment. Allow 7 or more days after application before tillage.

Muhly, wirestem—Apply 1 to 2 quarts of this product per acre. Use 1 quart of this product plus 0.5 to 1 percent nominic surfactant by total spray volume in 3 to 10 gallons of water per acre. Use 2 quarts of this product when applying 10 to 40 gallons of water per acre or in pasture, sod, or noncrop areas. Spray when the wirestem muhly is 8 inches or more in height and actively growing. Do not till between harvest and fall applications or in the fall or spring prior to spring applications. Allow 3 or more days after application before tillage. This product will not provide residual control of wirestem muhly from seeds which germinate after application of this product. Do not tank mix with residual herbicides when using the 1 quart per acre rate.

Nightshade, silverleaf—For control, apply 2 quarts of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. Applications should be made when at least 60 percent of the plants have berries. Fall treatments must be applied before a killing frost. Altow 7 or more days after application before tillage. Do not treat when weed is under drought stress as good soil moisture is necessary for active growth.

Nutsedge; purple, yellow—Apply 3 quarts of this product per acre as a broadcast spray, or apply a 1 to 2 percent solution from handheld equipment to control existing nutsedge plants and immature nutlets attached to treated plants. Ireat when plants are in flower or when new nutlets can be found at rhizome tips. Nutlets which have not germinated will not be controlled and may germinate following treatment. Repeat treatments will be required for long-term control of ungerminated tubers.

Sequential applications of 1 to 2 quarts of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre will provide control. Make applications when a majority of the plants are in the 3- to 5-leaf stage (less than 6 inches tall). Repeat this application, as necessary, when newly emerging plants reach the 3- to 5-leaf stage. Subsequent applications will be necessary for long-term control.

For suppression to partial control of existing plants, apply 1 pint to 2 quants of this product per acre, plus 0.5 to 1 percent nonionic surfactant in 3 to 40 gallons of water per acre. Treat when plants have 3 to 5 leaves and most are less than 6 inches tall. Repeat treatments will be required to control subsequent emerging plants or regrowth of existing plants. Wait 7 days after treatment before tillage or mowing.

Pampasgrass / Ice plant—Apply this product as a 1.5 to 2 percent solution using hand-held equipment. Apply to plants that are actively growing. Pampasgrass should be at or beyond the boot stage of growth. Thorough coverage is necessary for best control.

Phragmites—For partial control of phragmites in Florida and the counties of other states bordering the Guli of Mexico, apply 5 quarts per acre as a broadcast spray or apply a 2 percent solution from hand-held equipment. In other areas of the U.S., apply 3 quarts per acre as a broadcast spray or apply a 1 percent solution from hand-held equipment for partial control. For best results, treat during fate summer or fall months or when plants are actively growing and in full bloom. Freatment before or after this stage may lead to reduced control. Due to the dense nature of the vegetation, which may prevent good spray coverage or uneven stages of growth, repeat treatments may be necessary to maintain control. Visual control symptoms will be slow to develop.

Quackgrass—In Annual Cropping Systems, or in Pastures and Sods Followed by Deep Tillage: Apply 1 to 2 quarts of this product per acre. For the 1 quart rate, apply 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. For the 2 quart rate, apply in 10 to 40 gallons of water per acre. Do not tank mix with residual herbicides when using the 1 quart rate. Spray when quackgrass is 6 to 8 inches in height and actively growing. Do not till between harvest and fall applications or in fall or spring prior to spring application. Allow 3 or more days after application before tillage. In pastures or sods, for best results use a moloboard plow.

Quackgrass—Pasture or Sod or Other Noncrop Areas Where Deep Tillage is Not Planned Following Application: Apply 2 to 3 quarts in 10 to 40 gallons of water per acce. Spray when the quackgrass is greater than 8 inches tall and actively growing. On not till between harvest and fall application or in fall or spring prior to spring application. Allow 3 or more days after application before tillage.

Redvine—For suppression, apply 24 fluid ounces of this product per acre at each of two applications 7 to 14 days apart or a single application of 2 quarts per acre. Apply recommended rates in 5 to 10 gallons of water per acre plus 0.5 to 1 percent nonionic surfactant by total volume. Apply in late September or early October to actively growing plants, which are at least 18 inches tall and have been growleast 1 week before a killing frost.

Read, giant—For control of giant reed, apply a 2 percent solution of this product when plants are actively growing. Best results are obtained when applications are made in late summer to fail.

Smartweed, swamp—Apply 3 to 5 quarts of this product per acre when plants are actively growing and most have reached the early bud stage of growth. Allow 7 or more days after application, before tiliage.

Also for control, apply 16 fluid ounces of this product plus 0.5 pound active ingredient of 2.4-0 plus 0.5 to 1 percent nenionic surfactant by total volume in 3 to 10 gallons of water per acre in the late summer or fall. Apply when plants are actively growing and most have reached the early bud stage of growth. Allow 7 or more days after application before tillage.

Spurge, leafy—For suppression, apply 16 fluid ounces of this product plus 0.5 pound active ingredient 2.4-0 plus 0.5 to 1 deceent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre in the late summer or fall. Apply when offants are actively growing. If mowing has occurred prior to treatment, apply when most of the plants are 12 inches tall. Allow 7 or more days after application before tillage.

Starthistle, yellow—Best results are obtained when applications are made during periods of active growth, including the rosette, bolding and early flower stages. For spray-to-wet applications, apply this product as a 2 percent solution. For broadcast applications, apply 2 quarts per acre in 10 to 40 gallons per acre of water carrier.

Sweet Potato, wild / Thistle, artichoke—Apply this product as a 2 percent solution using hand-held equipment. Apply to actively growing weeds that are at or beyond the bloom stage of growth. Repeat applications may be required. Allow the plant to reach the recommended stage of growth before retreatment. Allow 7 or more days before tillage.



Thistle, Canada—Apply 2 to 3 quarts of this product per acre. Apply to actively growing thistles when most are at or beyond the bud stage of growth. After harvest, mowing or tillage in the late summer or fall. allow at least 4 weeks for initiation of active growth and rosette development prior to the application of this product. Fall treatments must be applied before a killing frost. Allow 3 or more days after application before tillage.

For suppression of Canada thistle, apply 1 quart per acre of this product, or 1 pint of this product plus 0.5 pound a.i. 2,4-0 per acre. plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre in the late summer or fall after harvest. mowing or tillage. Allow rosette regrowth to a minimum of 6 inches in diameter before treating. Applications can be made as long as leaves are still green and plants are actively growing at the time of application. Allow 3 or more days after application before tillage.

Torpedograss—Apply 4 to 5 quarts of this product per acre to provide partial control of torpedograss. Apply to actively growing torpedograss when most plants are at or beyond the seedhead stage of growth. Repeat applications will be required to maintain control. Fall treatments must be applied before frost. Allow 7 or more days after application before tillage.

Trumpetcreeper—For control, apply 2 quarts of this product per acre in 5 to 10 gallons of water per acre. Apply to actively growing plants in late September or October, which are at least 18 inches tall and have been growing 45 to 60 days since the last tillage operation. Make applications at least 1 week before a killing frost.

Other perennials fisted on this label—Apply 3 to 5 quarts of this product per acre. Apply when actively growing and most have reached early head or early bud stage of growth. Allow 7 or more days after application before tillage.

When applied as recommended under the conditions described, this product CONTROLS or PARTIALLY CONTROLS the following woody brush, plants and trees:

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Alnus spp.

Ash*

Fraxinus spp.

Aspen, quaking

Populus tremuloides

Bearmat (Bearclover)

Chamaebatia foliolosa

Beech

Fagus grandifolia

Birch

Betula spp. Blackberry

Rubus spp.

8łackgum

Nyssa sop

Bracken

Peridium spp.

Broom:

French Cytisus monsoessulanus

Scotch

Cytisus scoparius

Buckwheat, California* Eriogonum fasciculatum Cascara*

Rhamnus purshiana

Catsclaw*

Acacia greggi

Ceanothus*

Ceanothus spp.

Chamise

Adenostoma fasciculatum

Cherry: Bitter

Prunus emarginata

Black

Prunus serotina

Prunus pensylvanica

Coyote brush

Baccharis consanguinea

Creeper, Virginia*

Parthenocissus quinquefolia

Dewberry

Rubus trivialis

Dogwood* Cornus spp.

Elderberry Sambucus son Elm* Ulmus spp.

Eucalyptus

Eucalyptus spp. Gorse

Ulex europaeus Hasardia*

Haplopappus squamosus

Hawthorn Crataegus spp.

Hazel Corylus spp.

Hickory* Carya spp.

Holly, Florida/ "Brazilian Peppertree*

Schinus terebinthifolius

Honeysuckle Lonicera spp.

Hornbeam, American* Carpinus caroliniana

Kudzu Pueraria lobata

Locust, black* Robinia pseudoacacia

Madrone Arbutus menziesii

Manzanita Arctostaphylos spp. Maple: Red** Acer rubrum

Sugar Acer saccharum

Acer circinatum

Monkey Flower*
Mimulus guttatus

Oak: Black* Quercus velutina Northern Pin Quercus palustris

Post Quercus stellata

Red *Quercus rubra* Southern Red *Quercus falcata*

White*
Ouercus alba
Persimmon*

Diospyros spp.
Pine
Pinus spp.
Poison lvy
Rhus radicans

Poison Oak
Rhus toxicodendron

Poplar, yellow* Liriodendron tulipifera

Raspberry Rubus spp. Redbud, eastern

Cercis canadensis Rose, multiflora Rosa multiflora

Russian-olive Elaeagnus angustifolia

Sage; black, white Salvia spp.

Sagebrush, California Artemisia californica

Salmonberry Rubus spectabilis

Salt cedar Tamarius spp. Sassafras

Sassafias aibidum Sourwood

Oxydendrum arboreum

Sumac: Poison* Rhus vernix

\$mooth* Rhus glabra

Winged* Rhus copallina

Sweetgum Liquidambar styraciflua Swordfern*

Polystichum munitum Tallowtree, Chinese Sapium Sebilerum

Lithocarpus densiflorus Thimbleberry

Rubus parvillorus
Tobacco, tree*

Tan,Oak

Nicotiana glavca Trumpetcreeper Campsis radicans

Waxmyrtle, southern*
Myrica cerifera

Willow Salix spp.

*Partial control

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NOTE: If brush has been mowed or tilled or trees have been cut, do not treat until regrowth has reached the recommended stages of

Apply this product when plants are actively growing and, unless otherwise directed, after full leaf expansion. Use the higher rate for larger plants and/or dense areas of growth. On vines, use the higher rate for plants that have reached the woody stage of growth. Best results are obtained when application is made in late summer or fall after fruit formation.

In and areas, best results are obtained when application is made in the spring to early summer when brush species are at high moisture content and are flowering.

Ensure thorough coverage when using hand-held equipment. Symptoms may not appear prior to frost or senescence with fall treatments.

Allow 7 or more days after application before tillage, mowing or removal. Repeat treatments may be necessary to control plants regenerating from underground parts or seed. Some autumn colors on undesirable deciduous species are acceptable provided no major leaf drop has occurred. Reduced performance may result if fall treatments are made following a frost

See "DIRECTIONS FOR USE" and "MIXING, ADDITIVES and APPLICA-TION INSTRUCTIONS" sections of this label for labeled uses and specific application instructions.

Apply this product as follows to control or partially control the following woody brush and trees.

Alder / Dewberry / Honeysuckle / Post Oak / Raspberry—For convol, apply 3 to 4 quarts per acre of this product as a broadcast spray or as a 1 to 1.5 percent solution with hand-held equipment.

Aspen, quaking / Cherry: bitter, black, pin / Hawthorn / Oak, southern red / Sweetgum / Trumpetcreeper—For control, apply 2 to 3 quarts of this product per acre as a broadcast spray or as a 1 to 1.5 percent solution with hand-held equipment.

Birch / Elderberry / Hazel / Salmonberry / Thimbleberry—For control, apply 2 quarts per acre of this product as a broadcast spray or as a 1 percent solution with hand-held equipment.

Blackberry—For control, apply 3 to 4 quarts per acre of this product as a broadcast spray, or 1 to 1.5 percent solution with hand-held equipment. Make application after plants have reached full leaf maturity. Best results are obtained when applications are made in late summer or fall. After berries have set or dropped in late fall, blackberry can be controlled by applying a 3/4 percent solution of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume with hand-held equipment. For control of blackberries after leaf drop and until killing frost or as long as stems are green, apply 3 to 4 quarts of this product in 10 to 40 gallons of water per acre.

Broom: French, Scotch—For control, apply a 1.5 to 2 percent solution with hand-held equipment.

Buckwheat, California / Hasardia / Monkey Flower / Tobacco, tree—For partial control of these species, apply a 1 to 2 percent solution of this product as a foliar spray with hand-held equipment. Thorough coverage of foliage is necessary for best results.

Catsclaw—For partial control, apply as a 1 to 1.5 percent solution with hand-held equipment.

Coyote Brush-For control, apply a 1.5 to 2 percent solution with hand-held equipment when at least 50 percent of the new leaves are

Eucalyptus—For control of eucalyptus resprouts, apply a 2 percent solution of this product with hand-held equipment when resprouts are 6 to 12 feet tall. Ensure complete coverage. Apply when plants are growing actively. Avoid application to drought-stressed plants.

Kudzu—For control, apply 4 quarts of this product per acre as a broadcast spray or as a 2 percent solution with hand-held equipment. Repeat applications will be required to maintain control.

Madrone resprouts—For suppression or partial control, apply a 2 percent solution of this product to resprouts less than 3 to 6 feet tall. Best results are obtained with spring/early summer treatments.

Maple, red—For control, apply as a 1 to 1.5 percent solution with hand-held equipment when at least 50 percent of the new leaves are fully developed. For partial control, apply 2 to 4 quarts of this product per acre as a broadcast spray.

Maple, sugar / Oak, northern pin / Oak, red—For control, apply as a 1 to 1.5 percent solution with hand-held equipment when at least 50 percent of the new leaves are fully developed.

Poison Ivy / Poison Oak—For control, apply 4 to 5 quarts of this product per acre as a broadcast spray or as a 2 percent solution with hand-held equipment. Repeat applications may be required to maintain control. Fall treatments must be applied before leaves lose green color.

Rose, multiflora—For control, apply 2 quarts of this product per acre as a broadcast spray or as a 1 percent solution with hand-held equipment. Treatments should be made prior to leaf deterioration by leaf-feeding insects.

Sage, black / Sagebrush, California / Chamise / Tallowtree, Chinese—For control of these species, apply a 1 percent solution of this product as a foliar spray with hand-held equipment. Thorough coverage of foliage is necessary for best results.

Tan oak resprouts—For suppression or partial control, apply a 2 percent solution of this product to resprouts less than 3 to 6 feet tall. Best results are obtained with fall applications.

Willow—For control, apply 3 quarts of this product per acre as a broadcast spray or as a 1 percent solution with hand-held equipment.

Other Woody Brush and Trees listed on this label—For partial control, apply 2 to 5 quarts of this product per acre as a broadcast spray or as a 1 to 2 percent solution with hand-held equipment.

NONCROP USES

See "GENERAL INFORMATION" and "MIXING, ADDITIVES and APPLI-CATION INSTRUCTIONS" sections of this label for essential product performance information and the following "NONCROP" sections for specific recommended uses.

EXTREME CARE MUST BE EXERCISED TO AVOID CONTACT OF SPRAY WITH FOLIAGE, GREEN STEMS, EXPOSED NON-WOODY ROOTS OR FRUIT OF CROPS, DESIRABLE TURFGRASSES, TREES, SHRUBS OR OTHER DESIRABLE VEGETATION SINCE SEVERE DAMAGE OR DESTRUCTION MAY RESULT.

Repeat treatments may be necessary to control weeds regenerating from underground parts or seeds.

Where repeat applications are necessary, do not exceed 10.6 quarts of this product per acre per year.

This product does not provide residual weed control. For subsequent weed control, follow a label-approved herbicide program.

Read and carefully observe the cautionary statements and all other information appearing on the labels of all herbicides used.

INDUSTRIAL, RECREATIONAL AND PUBLIC AREAS

When applied as directed for "NONCROP USES," under conditions described, this product controls annual and perennial weeds listed on this label growing in areas such as airmorts, ditch banks, dry ditches, dry canals, fencerows, golf courses, highways, industrial plant sites, lumber yards, parking areas, parks, petroleum tank farms and pumping installations, pipelines, power and telephone rights-of-way, fail-roads, roadsides, schools, storage areas, utility substations, other public areas and similar industrial or noncrop areas.

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For specific rates of application and instructions for control of various annual and perennial weeds and woody brush and trees, see the "WEEDS CONTROLLED" section of this label.

This product may be applied with recirculating sprayers, shielded applicators, or wiper applicators in any noncrop site specified on this label. See the Selective Equipment part of "APPLICATION EQUIPMENT and TECHNIQUES" section of this label for information on proper use and calibration of this equipment.

TANK MIXTURES FOR INDUSTRIAL SITES AND FORESTRY SITE PREPARATIONS

SILHOUETTE® plus OUSTIM

Use on industrial sites including airports, industrial plants, lumberyards, petroleum tank farms, pumping stations, railroads, roadsides, storage areas or other similar sites where bare ground is desired.

This tank mixture may also be used as a site preparation treatment for sites to be planted to jack pine, loblolly pine, red pine, slash pine and Virginia pine. When applied as directed for "NONCROP USES" under the conditions described, this product plus Oust provides control of annual weeds listed in the "WEEDS CONTROLLED" section of the label for this preduct and Oust, and control or partial control of the perennial weeds listed below.

Apply I to 2 quarts of this product with 2 to 4 ounces of Oust in 10 to 40 gallons of spray solution per acre as a broadcast spray to actively growing weeds.

This mixture may be applied by aerial equipment in site prep operations. When applied by air, use the recommended rates in 5 to 15 gal-

This product plus Oust tank mixtures may not be applied by air in California.

For control of annual weeds, use the lower rates of these products. For control of the listed perennial weeds, use the higher rates of both products. For partial control, use the lower rates.

Bahiagrass Paspalum notatum

Bermudagrass* Cynodon dactylon

Broomsedge Andropogon virginicus

Dock, curly Rumex crispus

Dogtennel Eupatorium capilliforium

Fescue, tall Festuca arundinacea Vaseygrass 💡 Paspalum urvillei

Vervain, blue Verbena hastata

**zeargnoznhol

Poorice**

Diodia teres

Agropyron repens

Campsis radicans

Trumpetcreeper*

Quackgrass

Sorghum halepense

*Suppression at the higher rates only.

**Control at the lower rates.

Read and carefully observe the cautionary statements and all other information appearing on the labels of all herbicides used.

TANK MIXTURES NONCROP SITES

When applied as a tank mixture, this product provides control of the emerged annual weeds and partial control of the emerged perennial weeds listed in this label. When applied as a tank mixture, the following residual herbicides will provide preemergence control of the weeds. listed in the individual product labels.

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	<u> </u>	54
	SILHOUETTE® plus DIURON	
•	SILKOUETTE plus KROVARIMI	
	SILHOUETTE plus KROVAR II	
	SILHOUETTE plus RONSTARTM 50WP	-
	SILHOUETTE plus SIMAZINE, PRINCEP CALIBER™ 90	•
	SILHOUETTE plus SIMAZINE 4L	
	SILHOUETTE plus SIMAZINE 80W	
	SILHOUETTE plus SURFLANIM 75W	
	SILHOUETTE plus SURFLAN AS	

When tank mixing with residual herbicides, add an agriculturally approved nonionic surfactant at 0.5 to 1 percent by volume of spray solution. See the "MIXING, ADDITIVES and APPLICATION INSTRUCTIONS" section of this label before preparing these tank mixtures.

Read and carefully observe the label claims, cautionary statements, recommended use rates and all other information on the labels of all products used in these tank mixtures. Use according to the most restrictive label directions for each product in the mixture.

CONTROL OF EMERGED WEEDS

NOTE: For backpack sprayer and handgun applications, see the "HAND-HELD AND HIGH VOLUME EQUIPMENT" section for recommended rates.

 Annual Weeds—Apply 1 quart per acre of this product in these tank mixtures when weeds are less than 6 inches tall and 1.5 quarts per acre when weeds are more than 6 inches tall.

Perennial Weeds.—For partial control of perennial weeds using these tank mixtures, apply 2 to 5 quarts per acre of this product. Follow the recommendations in the "WEEDS CONTROLLED" section of this label for stage of growth and rate of application for specific perennial weeds.

PREEMERGENCE WEED CONTROL

For preemergence weed control, refer to the individual product labels for specific noncrop sites, rates, carrier volumes and precautionary statements

Mix only the quantity of spray solution which can be used during the same day. Do not allow these tank mixtures to stand overnight as this may result in reduced weed control.

FARMSTEAD WEED CONTROL

When applied as directed for "NONCROP USES", under conditions described, this product controls undesirable vegetation listed on this label around farmstead building foundations, along and in fences, shelterbelts and for general nonselective farmstead weed control.

For specific rates of application and instructions for control of various annual and perennial weeds, see the "WEEDS CONTROLLED" section of this tabel

FARM DITCHES

This product will suppress perennial grasses along farm ditches. Apply this product at a rate of 6 to 8 fluid ounces per acre. Use 8 fluid ounces per acre when treating tall (coarse) fescue, fine fescue, orchardgrass or quackgrass covers. For best suppression of these species, add ammonium sulfate at a rate of 1.7 pounds per 10 gallons of spray solution. Use 6 fluid ounces per acre without ammonium sulfate when treating Kentucky bluegrass.

Apply treatments in 10 to 20 gallons of spray solution per acre to actively growing perennial grass covers. For best spray distribution and coverage, use flat fan nozzles.

Add a nonionic surfactant at a rate of 0.5 percent of the spray solution

Where broadleaf weed control or suppression is desired, tank mix this product with an appropriate, labeled broadleaf weed herbicide.

CONSERVATION RESERVE PROGRAM (CRP ACRES)

This product can be used to control undestrable vegetation when rotating out of CRP acres or to suppress competitive growth and seed production of undestrable vegetation in CRP acres.

For specific rates of application for various annual and perennial weeds, see the "WEEDS CONTROLLED" section of this label.

CRP applications may be made with wiper applicators or conventional spray equipment.

For sefective applications with broadcast spray equipment, apply 12 to 16 ounces per acre of this product in early spring before desirable CRP grasses, such as crested and tall wheatgrass, break dormancy and initiate green growth. Lete fall applications can be made after desirable perennial grasses have reached dormancy. Some stunting of CRP perennial grasses will occur if applications are made when plants are not dormant.

HABITAT MANAGEMENT

This product is recommended for the restoration and/or maintenance of native habitats and in wildlife management areas. Apply as recommended in the "NONCROP USES" section of this label.

Habitat Restoration and Maintenance—When applied as directed, excite and other undestrable vegetation may be controlled in habitat management areas. Applications can be made to allow recovery of native plant species, prior to planting desirable native species, and for similar broadspectrum vegetation control requirements in habitat

management areas. Spot treatments can be made to selectively remove unwanted plants for habital maintenance and enhancement. For spot treatments, care should be exercised to keep spray off of desirable plants.

Wildlife Food Plots—This product may be used as a site preparation treatment prior to planting wildlife food plots. Any wildlife food species may be planted after applying this product, or native species may be allowed to repopulate the area. If tillage is needed to prepare a seedbed, wait 7 days after applying this product before tilling.

ORNAMENTALS, TREE NURSERIES AND CHRISTMAS TREES

THIS PRODUCT IS NOT RECOMMENDED FOR USE AS AN OVER-THE-TOP BROADCAST SPRAY IN ORNAMENTALS AND CHRISTMAS TREES.

NOTE: Desirable plants may be protected from the spray solution by using shields or coverings made of cardboard or other impermeable material

When applied as instructed for the conditions described for "NON-CROP USES", this product controls undesirable vegetation fisted on this label prior to planting, within and around greenhouses and shadehouses, and as a postdirected spray around established ornamentals and Christmas trees.

For specific rates of application and instructions for control of various annual and perennial weeds, see the "WEEDS CONTROLLED" section of this label.

Where repeat applications are necessary, do not exceed 10.6 quarts of this product per acre per year.

Site Preparation—Following preplant applications of this product, any ornamental, nursery species or Christmas tree species may be planted. Precautions should be taken to protect nontarget plants during site preparation applications.

Greenhouse / Shadehouse Use—This product may be used to control weeds listed on this label which are growing in greenhouses. Desirable vegetation must not be present during application and air circulation fans must be turned off.

Postdirected Spray—Use as a postdirected spray around established woody ornamental species, nursery species or Christmas trees such as those listed below. Care must be exercised to avoid contact of spray, drift or mist with foliage of or green bank of established ornamental species.

Arborvilae Thuja spp. Azalea

Azalea Rhododendron spp.

Boxwood

Boxwood

Boxus spp.

Crabapple

Malus spp.

Euonymus Euonymus spp.

Fir Abies spp. Pseudotsuga spp.

Simmondsia chinensis

Hollies *llex* spp. Litac Syringa spp.

Magnolia Magnolia spp.

Maple *Acer spp.* Dak

Quercus spp.

Privet
Ligustrum spp
Pine

Pinus spp.

Spruce
Picea spp.

Yew Taxus spp.

SILVICULTURAL SITES and RIGHTS-OF-WAY

NOTE: NOT RECOMMENDED FOR USE AS AN OVER-THE-TOP BROAD-CAST SPRAY IN SILVICULTURAL NURSERIES.

When applied as directed for "NONCROP USES" under conditions described, this product controls undesirable vegetation listed on this label. This product also suppresses or controls undesirable vegetation listed on this label when applied at recommended rates for release of established coniferous species listed on this label.

For specific rates of application and instructions for control of various brush, annual and perennial weeds, see the "WEEDS CONTROLLEO" section of this label. For specific rates of application for release of listed conferous species, see the "CONFER RELEASE" part of this section of the label.

Where repeat applications are necessary, do not exceed 10.6 quarts of this product per acre per year.

Aerial Application—This product may be applied using aerial spray equipment for silvicultural site preparation, confer release and rights-of-way treatments. See the "APPLICATION EQUIPMENT and TECHNIQUES" part of the "MIXING, ADDITIVES and APPLICATION INSTRUCTIONS" section of this label for information on how to apply this product by air.

DO NOT APPLY THIS PRODUCT BY AIR TO RIGHTS-OF-WAY SITES IN THE STATE OF CALIFORNIA.

To reduce the aerial application drift hazard to aquatic sites*, to nontarget sites or any site containing desirable vegetation, always maintain appropriate ouffer zones. A buffer zone of the following minimum distances should be maintained:

 Helicopters using a Microfoli™ boom, a Thru-Valve™ boom (TVB-45), or equivalent drift control systems, should maintain at least a 50-foot buffer zone.

- · When using other aerial equipment:
- 1. Maintain at least a 75-foot buffer zone for applications using 2 quarts or less per acre of this product.
- 2. Maintain at least a 125-foot buffer zone for applications using more than 2 quarts per acre of this product.
- 3. Maintain at least a 400-foot buffer zone for applications on rights-of-way when applied from 75 feet or more above ground level

These distances should be increased if conditions favoring drift exist. *Aquatic sites include all takes, ponds and streams used for significant domestic purposes or angling

SITE PREPARATION

Following preplant applications of this product, any silvicultural species may be planted.

POSTD/RECTED SPRAY

In established silvicultural sites, use as a spray on the foliage of undestrable vegetation. Care must be exercised to avoid contact of spray, drift or mist with foliage or green bank of desirable species.

CONIFER RELEASE

For release, apply only where conifers have been established for more than one year. Vegetation should not be disturbed prior to treatment or until visual symptoms appear after treatment. Symptoms of treatment are slow to appear, especially in woody species treated in late fall. Injury may occur to conifers treated for release, especially where spray patterns overlap or the higher rates are applied or when applications are made during periods of active conifer growth. Do not use additional surfactant with conifer release applications.

Applications must be made after formation of final conifer resting buds in the fall or prior to initial bud swelling in spring. Some autumn colors on undestrable deciduous species are acceptable provided no

major leaf drop has occurred. Use the following rates for conifer release to control or partially control the weeds listed in the "WEEDS CONTROLLED" section of this label.

For release of the following conifer species:

Douglas fir

Pines*

Pseudotsuga menziesii

Pinus son

Some

Abies spp

Picea spp.

Hemiock

Isuga spp.

*Includes all species except eastern white pine, loblotly pine or slash

Apply 1.5 to 2 quarts of this product per acre except in Washington ... and Oregon, west of the crest of the Cascade Mountains. For spring treatments west of the crest of the Cascade Mountains, apply 1 quart of this product per acre before coniter bud swell for control of annual weeds. For fall treatments in Washington and Oregon, west of the crest of the Cascade Mountains, apply 1 to 1.5 quarts of this product per acre before any major leaf drop of deciduous species.

for release of western hemlock, apply 1 quart of this product per

For release of the following conifer species:

Lobiolly pine Pinus taeda

Slash pine Pinus ellioftii

Eastern white pine

Pious strobus

Late Season Application-Apply 1.5 to 2 quarts of this product in a minimum of 5 gallons of spray solution per acre during early autumn. Applications made prior to September 1 or when conditions are conducive to rapid growth of conifers will create the potential for increased injury in the form of tip and/or needle burn. Injury may

decrease with later applications. Some autumn colors are acceptable at time of application. Apply prior to frost or leaf drop of undesirable plants. Applications made according to label directions will release lobiolly pine, eastern white pine and stash pine by reducing competition from the following species:

Ash

Frazinus spp.

Cherry: Black

Prunus serotina Piη

Prunus pensylvanica

Elm Ulmus spp.

Hawthorn Crataegus spp.

Locust, black Robina pseudoacacia

Maple, red Acer rubra

0ak: Black Quercus velutina

Post Quercus stellata

Southern Red Quercus falcata White

Querçus alba

Persimman Diospyros spp.

Poplar, yellow Liriodendron tulipfera

Sassafras Sassafras albidum

Sourwood

Oxydendrum arboreum

Sumac: Poison Rhus vernix Smooth

Rhus glabra Winged

Rhus copallina Sweetgum

Liquidambar styracillua

Apply only to those sites where woody brush and trees listed in this label constitute the majority of the undesirable species.

SILHOUETTE® plus OUST TANK MIXTURES FOR CONIFER RELEASE FROM HERBACEOUS WEEOS

To release lobiolly pines from herbaceous weeds, tank mixtures of this product with Oust will provide control of annual weeds listed in the "WEEDS CONTROLLED" section of this and the Oust label, and partial control of the perennial weeds listed below.

Apply 16 to 24 fluid ounces of this product with 2 to 4 gunces of Oust in 10 to 30 gallons of spray solution per acre. Make application to actively growing weeds as a broadcast spray over the top of the young

This product plus Oust tank mixtures may not be applied by air in

This tank mixture may be applied using aerial equipment. When applying by air, use the recommended rate in 5 to 15 gallons of spray:

For control of annual weeds below 12 inches in height (or runner length on annual vines), use the lower rates of both products. Use the higher rates of both products when annual weeds are in more advanced stages of growth and approaching flower or seed formation.

Use the higher rates of both products for partial control of the following perennial weeds. Use the lower rates for suppression of growth.

Bahiagrass

Paspalum notatum

Broomsedge Andropogon virginicus

Dock, carrly Rumex crispus

Doglennel Eupatorium capillilorium

Fescue, tall Festuca arundinacea *szergnoznáci Sorghum halepense

Poorjoe* Diodia teres

Trumpetcreeper** Campsis radicans

Vaseygrass

Paspalum urvillei Vervain, blue Verbena hastata

*Control at the higher rates.

**Suppression at the higher rates only.

Pine damage may occur or can be accentuated if treatment takes place when young trees are under stress from drought, flood water.

Read and observe the cautionary statements and all other information appearing on the labels of all herbicides used.

NOTE TO USER

This product must not be used in aleas where adverse impact on federally designated endangered/threatened plant or aquatic species

Prior to making applications, the user of this product must determine that no such species are located in or immediately adjacent to the area to be treated.

CUT STUMP TREATMENTS

Woody vegetation may be controlled by treating freshly cut stumps of trees and resprouts with this product. Apply this product using suitable equipment to ensure coverage of the entire cambium. Cut vegelation close to the soil surface. Apply a 50 to 100 percent solution of this product to the freshly-cut surface immediately after cutting Delays in application may result in reduced performance. For best results, applications should be made during periods of active growth

When used according to directions for cut stump application, this product will CONTROL, PARTIALLY CONTROL or SUPPRESS many types of woody brush and tree species, some of which are listed below:

Madrone

Alnus spp. Eucalyptus

Arbutus menziesii 0ak

Eucalyptus spp.

Quercus spp.

Reed, giant Arundo donax

Tan Oak

Saltcedar Tarnarisk spp. Lithocarpus densiflorus

Willow Salux spp.

Sweetgum

Liquidambar styraciftua

INJECTION AND FRILL APPLICATIONS

Woody vegetation may be controlled by injection or trill application of this product. Apply this product using suitable equipment which must penetrate into the living tissue. Apply the equivalent of 1 ml of this product per each 2 to 3 inches of trunk diameter (DBH). This is best achieved by applying a 50 to 100 percent concentration of this material either to a continuous frill around the tree or as cuts evenly spaced around the tree below all branches. As tree diameter increases in size, better results are achieved by applying diluted material to a continuous frill or more closely spaced cuttings. Avoid application techniques that allow runoff to occur from trill or cut areas in species that exude sap freely after hills or cutting. In species such as this, make fall or cut at an oblique angle so as to produce a cupping effect and use undiluted material. For best results, application should be made during periods of active growth and after full leaf expansion.

This treatment WILL CONTROL the following woody species: Oak

Sweetgum

Quercus spp. Poplar .

Liquidambar styraciflua

Populus spp.

Сусалтоге

This treatment WILL SUPPRESS the following woody species: Black gum

Myssa sylvatica

Hickory Carya spp.

Dogwood Cornus spp.

Maple, red. Acer rubrum

TURFGRASSES AND GRASSES FOR SEED PRODUCTION

PREPLANT AND RENOVATION

When applied as directed for "NONCROP USES", under conditions described, this product controls most existing vegetation prior to the planting or renovation of either turigrasses or grass seed production areas.

for specific rates of application and instructions for control of various annual and perennial weeds, and woody brush and trees, see the "WEEDS CONTROLLEO" section of this label.

For maximum control of existing vegetation, delay planting to determine if any regrowth from escaped underground plant parts occurs. Where repeat treatments are necessary, sufficient regrowth must be attained prior to application. For warm-season grasses, such as bermudagrass, summer or fall applications provide best control.

DO NOT DISTURB SOIL OR UNDERGROUND PLANT PARTS BEFORE TREATMENT. Tillage or renovation techniques such as vertical mow. ing. coring or slicing should be delayed for 7 days after application to allow proper translocation into underground plant parts.

TURFGRASSES

Where existing vegetation is growing in a field or unmowed situation, apply this product to actively growing weeds at the stages of growth fisted in the "WEEDS CONTROLLED" section of this label.

Where existing vegetation is growing under mowed turigrass management, apply this product after omitting at least one regular mowing to allow sufficient growth for good interception of the spray.

Desirable turgrasses may be planted following the above procedures.

GRASSES FOR SEED PRODUCTION

Apply this product to actively growing weeds at the stages of growth recommended in the "WEEDS CONTROLLED" section of this label

prior to planting or renovation of turf or forage grass areas grown for seed production.

DO NOT feed or graze treated areas within 8 weeks after application.

ANNUAL WEED CONTROL IN DORMANT BERMUDAGRASS AND BAHIAGRASS TURF

When applied as directed for "NONCROP USES" under the conditions described, this product will provide control or suppression of many winter annual weeds and tall fescue for effective release of dormant bermudagrass and bahiagrass turf. Refer to the rate table for Silhouette alone under the "RELEASE OF BERMUDAGRASS and BAHIAGRASS" section of this label for recommended rates and volumes on the species to be suppressed or controlled. Treat only when turf is dormant and prior to spring greenup. Spot treatments or broadcast applications of this product in excess of 16 fluid ounces per acre may result in injury or delayed greenup in highly maintained turfgrass areas; i.e., golf courses, lawns, etc. DO NOI APPLY TANK MIXTURES of this product plus Oust in highly maintained turfgrass areas.

RELEASE OF BERMUDAGRASS OR BAHIAGRASS

NOTE: Use only in areas where bermudagrass or bahiagrass are desirable ground covers and where some temporary injury or discoloration can be tolerated. Use tank mixtures of this product plus Oust only on railroads, highways, utility plant sites, or other right-of-way areas.

When applied as directed for "NONCROP USES" under the conditions described, this product will provide control or suppression of many winter annual weeds and tall fescue for effective release of dormant bermudagrass or bahiagrass. This product may be tank-mixed with Oust as recommended for residual control. Make applications to dormant bermudagrass or bahiagrass. Tank mixtures of this product plus

Oust may delay greenup. To avoid delays in greenup and minimize injury, do not add more than 1 ounce per acre of Oust on bermudagrass or more than 0.5 ounce per acre on bahiagrass, or treat when these grasses are in a semi-dormant condition.

For best results on winter annuals, treat when plants are in an early growth stage (below 6 inches in height) after most have germinated. For best results on tall fescue, treat when fescue is in or beyond the

WEEDS CONTROLLED

Rate recommendations for control or suppression of winter annuals and tall fescue are listed below:

Apply the recommended rates of this product alone or as a tank mixture in 10 to 25 gailons of water, plus 0.5 to 1 percent nonionic surfactant by total spray volume per acre.

For the best recommendation for the mixture of weeds within your geographic area, contact your CenexLand O' Lakes representative.

WEEDS CONTROLLED OR SUPPRESSED WITH SILHOUETTE® ALONE*

Silhouette® FLUID OZ/ACRE

NOTE: C = ControlS = Suppression

WEED SPECIES

is present.

WEED SPECIES					roto (NUNUN	t
·		8_	12	16	24	32	6
Barley, little Hordeum pusilium		S	C	C	С	c	C
Bedstraw, catchweed` Galium aparine	-	2	C	С	ε	С	С
Bluegrass, annual <i>Poa annua</i>		S	C.	С	С	. С	С
	-						
Chervil Chaerophyllum tainturieri		\$	C (;	С	C .	c
Chickweed, common Stellaria media	S	(c c	:	C	С -	С
Clover, crimson Trifotium incarnatum	•	S	s	(ς ,	C (C
Clover, large hop <i>Tritolium campestre</i>	. •	s	S	5	: (: c	
Fescue, Iall Festuca arundinaceae	•				S	s	
Geranium, Carolina Geranium carolinianum	•		S.	s	С	С	
Henbit Lamium amplexicaule	•	s	c	Ċ	С	С	
Ryegrass Italian Lolium multiflorum			S	С	c		
Speedwell, com Veronica arvensis	\$	c	c	С	c	С	
letch, common <i>Vicia sativa</i>	•	•	S	С	С	С	
These rates apply only to sites was present.	rhere .	an est	ablishe	е сол	opetith	re turí	

WEEDS CONTROLLED OR SUPPRESSED WITH SILHOUETTE® PLUS OUST*

NDTE: C = Control S = Suppression

5 = Suppression		S	ilhove	tte®	÷ Ou	st	
Sithouette (FL. 02/	4) 8	12	12	16	16	12	16
WEED + SPECIES OUST (OZ/A)	+	+ 1/c	+	+	+	÷ !	÷
SPECIES OUST (OZ/A)	-74	1/4	-77	-74	-77		
Barley, little Hordeum pusilium	С	С	С	C	С	С	С
Bedstraw, catchweed Galium aparine	С	C	С	С	С	С	C
Bluegrass, annual Poa annua	. \$	С	C	C	С	С	C
Chervil Chaerophyllum tainturieri	C	С	C	C	C	C	C
Chickweed, common Stellatia media	2	С	C	C	С	С	C
Clover, crimson Tritolium incarnatum	S	\$	2	\$	Ċ	С	C
Cłover, large hop Tritolium campestre	•	٠	\$	٦.	S	С	C
Fescue, tall Festuca arundinaceae	•	•	•	•	•	S	\$
Geranium, Carolina Geranium carolinianum	•	S	S	¢	C	С	3
Kenbit Lamium amplexicaule	٠	S	С	С	C	,C	C
Ryegrass, Italian Lolium multiflorum	•	S	\$	С	C	С	С
Speedwell, corn Veronica arvensis	S	С	С	С	С	С	С

Vicia sativa *These rates or mixtures of rates apply only to sites where an estabfished competitive turf is present.

RELEASE OF ACTIVELY GROWING BERMUDAGRASS

When applied as directed, this product will aid in the release of bermudagrass by providing control of annual species listed in the "WEEDS CONTROLLED" section of this and the Oust label, and suppression or partial control of certain perennial weeds.

For control or suppression of those annual species fisted on this label. use 1 to 3 pints of this product as a broadcast spray in 10 to 25 gallons of spray solution per acre. Use the lower rate when treating annual weeds below 6 inches in height (or length of runner in annual vines). Use the higher rate as weeds increase in size or as they approach flower or seedhead formation.

Use the higher rate of this product for partial control of the following perennial species. Use the lower rates for suppression of growth, For best results, see the "WEEDS CONTROLLED" section of this label for proper stage of growth.

Bahiagrass Paspalum notatum

Yetck, common

Johnsongrass* Sorghum halepense

Bluestem, silver Andropogon saccharoides

Trumpetcreeper** Campsis radicans

Fescue, tall Festuca arundinacea

Vaseygrass Paspalum urvillei

*Control at the higher rates.

**Suppression at higher rates only.

This product may be tank-mixed with Oust. If tank-mixed, use no more than 1 to 2 pints per acre of this product with 1 to 2 ounces of Oust per acre.

Use the lower rates of both mixtures to control annual weeds below 6 inches in height (or runner length in annual vines) that are listed in the "WEFDS CONTROLLED" section of this booklet and the Oust label. Use the higher rates as annual weeds increase in size and approach the flower or seedhead stages.

Use the higher rates of this product to provide partial control of the following perennial weeds. Use the lower rates for suppression of grawth.

> Johnsongrass* Sorghum hatepense

Poorjoe**

Vaseygrass Paspalum urvillei

Yervain, blue

Verbena hastata

Diodia teres Trumpetcreeper*

Campsis radicans

Bahiagrass

Paspalum notatum

Bluestem, silver Andropogon saccharoides

8roomsedge Andropogon virginicus

Dock, curty Rumex crispus

Eupatorium capilliforium

Doglennel

Fescue, tall

Festuca arundinacea

*Suppression at higher rates only.

** Control at the higher rates.

Use only on well-established bermudagrass. Bermudagrass injury may result from the treatment but regrowth will occur under moist conditions. Repeat applications in the same season are not recommended, since severe injury may result. .

Read and carefully observe the cautionary statements and all other information appearing on the labels of all kerbicides used.

COOL SEASON TURF GROWTH REGULATION

When applied as directed, this product will suppress growth and seedhead development of fisted turf species in industrial sites.

This product is recommended for management of coarse turk on roadside rights-of-way or other industrial areas. Do not use on high-quality turf or other areas where some turf color changes cannot be tolerated. Slight buf discoloration may occur but turf will regreen and regrow under moist conditions as effects of this product wear off.

Apply 4 to 5 fluid ounces of this product per acre alone or in a recommended tank mixture. Spray volumes of 10 to 40 gailons per acre are recommended

When using this product, mix 2 quarts of a nonionic surfactant per 100 gallons of spray solution.

This product can be used for growth and seedhead suppression of:

Tall Fescue Smooth Brome

For best results, apply this product in a recommended tank mixture to actively growing turfgrasses after greenup in the spring of the year. For suppression of seedheads, applications must be made before boot-to-seedhead stage of development. Applications made from seedhead emergence until maturity may result in turt discoloration or injury.

After mowing or removal of seedheads, this product in a recommended tank mixture may also be used to suppress the growth of certain turigrasses. Allow turf to recover from stress caused by heat, drought or mowing before making applications. Applications made to turf under stress may increase the potential for discoloration or injury.

ANNUAL GRASSES

For growth suppression of some annual grasses such as annual ryegrass, wild barley and wild oats, apply 3 to 4 fluid ounces of this product in 10 to 40 gallons of spray solution per acre. Applications should be made when annual grasses are actively growing and before the seedheads are in the bool stage of development. Treatments made after seedhead emergence may cause injury to the desired grasses.

TANK MIXTURES

for the following lank mixtures, consult each product label for weeds controlled and the correct stage of application. Do not treat turf under stress.

Tank mixtures plus 2,4-D Amine

For additional weed control benefits, up to 1 pound a.i. per acre of 2,4-0 amine may be added to the following tank mixtures. Consult the label for 2,4-0 amine for weeds controlled.

TALL FESCUE

Silhonette plus Telar™

For suppression of tall fescue growth and seedheads, and control or partial control of some annual weeds, apply this tank mixture after greenup and prior to boot-to-seedhead stage of development. Use up to 0.5 ounce of Telar per acre.

This tank mixture can also be applied after mowing or removal of tall fescue seedheads for turl growth suppression. Make only one of the above applications per growing season.

Silhouette alus Oust

For suppression of tall fescue growth and seedheads, and control or partial control of some annual weeds, apply this tank mixture after greenup and prior to boot-to-seedhead stage of development. Use up to 0.25 nunce of Dust per acre.

Siihouette plus Escort**

This tank mixture can be applied after mowing or removal of tall fescue seedheads for furf growth suppression and control or partial control of some annual weeds. Use up to 1/3 ounce of Escort per acre.

SMOOTH BROME

Silhouette plus Dust

For suppression of smooth brome growth and seedheads and control or partial control of some annual weeds, apply this tank mixture after greenup and prior to boot-to-seedhead stage of development. Use up to 0.25 ounce of Oust per acre.

BAHIAGRASS SEEDHEAD AND VEGETATIVE SUPPRESSION

When applied as directed in the indicated noncrop areas (roadsides, airports, golf course roughs, and plant sites), this product will provide significant inhibition of seedhead emergence and will suppress vegetative growth for a period of approximately 45 days with single applications and approximately 120 days with sequential applications.

Apply this product 1 to 2 weeks after full greenup of bahiagrass or after the bahiagrass has been mowed to a uniform height of 3 to 4 inches. Applications must be made prior to seedhead emergence. Apply 6 fluid ounces per acre of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 10 to 25 gallons of water per acre.

Sequential applications of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume may be made at approximately 45 day intervals to extend the period of seedhead and vegetative growth suppression. For continued seedhead suppression, sequential applications must be made prior to seedhead emergence. Apply no more than 2 sequential applications per year. As a first sequential application, apply 4 fluid ounces of this product per acre plus nomionic surfactant. A second sequential application of 2 to 4 fluid ounces per

acre plus nonionic surfactant may be made approximately 45 days after the last application.

A tank mixture of this product plus Oust may be applied only on roadsides for seedhead inhibition and vegetative suppression. Apply 6 fluid ounces per acre of this product plus 0.25 ounce per acre of Oust, plus 0.5 to 1 percent nonionic surfactant by total spray volume 1 to 2 weeks following an initial spring moving. When using this product plus Oust for suppression of bahiagrass, make only 1 application per year.

CROPPING SYSTEMS

When applied as directed for "CROPPING SYSTEMS", under the conditions described, this product controls annual and perennial weeds listed on this label, prior to the emergence of direct seeded crops or prior to transplanting of crops listed on this label.

See "GENERAL INFORMATION" and "MIXING, ADDITIVES and APPLI-CATION INSTRUCTIONS" sections of this label for essential product performance information.

See the following "CROPPING SYSTEMS" sections for specific recommended uses.

EXTREME CARE MUST BE EXERCISED TO AVOID CONTACT OF SPRAY WITH FOLIAGE, GREEN STEMS OR FRUIT OF DESIRABLE CROPS, PLANTS, TREES OR OTHER DESIRABLE VEGETATION SINCE SEVERE DAMAGE OR DESTRUCTION MAY RESULT.

Repeat treatments may be necessary to control weeds regenerating from underground parts or seed. Except as otherwise specified on this label, repeat treatments must be made before the crop emerges in accordance with the instructions of this label.

Except as otherwise specified in a crop section of this label, the combined total of all treatments must not exceed 8 quarts per acre of this product per year.

For any crop not listed below, applications must be made at least 30 days prior to planting.

Do not harvest or feed treated vegetation for 8 weeks following application. Following spot treatment or selective equipment use, allow 14 days before grazing domestic livestock or harvesting forage grasses and legumes.

ROW CROPS
CORN (ALL)*
COTTON*
PEANUTS
SORGHUM (MILO)*
SOYBEANS*
SUGARCANE*

CEREAL GRAINS
BARLEY*
BUCKWHEAT*
MILLET (PEARL, PROSO)*
OATS*

RICE**
RYE*
TRITICALE*
WHEAT (ALL)*
WILD RICE*

CITRUS
CALAMONDIN
CHIRONIA
CITRON
GRAPEFRUIT
KUMQUAT
LEMON
LIME

MANDARIN QRANGE ORANGE (ALL) PUMMELO TANGELO TANGERINE TANGORS

TREE NUTS

ALMOND
BEECHNUT
BRAZIL NUT
BUTTERNUT
CASHEW
CHESTNUT
CHINQUAPIN
FILBERT (HAZELNUT)
HICKORY NUT
MACADAMIA
PECAN

MACADAMIA PECAN PISTACHIO WALNUT (BLACK, ENGLISH)

VINE CROPS GRAPES KIWI FRUIT IREE FRUITS

APPLE APRICOTS CHERRY (SWEET SQUR)

LQQUAT Mayhaw

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NECTARINE OLIVE PEACH PEAR PLUM/PRUNE (ALL) QUINCE <u>VEGETABLES</u> ARTICHOKE. JERUSALEM ASPARAGUS* BEANS (ALL) BEET GREENS BEETS (RED, SUGAR) BROCCOLI (ALL) **BRUSSELS SPROUTS** CABBAGE (ALL) CABBAGE, CHINESE CANTALOUPE*** CARROT CAULIFLOWER CASABA MELON*** CELERIAC CELERY CHARD, SWISS CHICORY COLLARDS CRENSHAW MELON*** CUCUMBER*** EGGPLANT*** ENDIVE GARLIC***

HONEY BALL MELON*** HORSERADISH KALE KOHLRABI LEEK LENTILS LETTUCE MANGO MELON*** MELONS (ALL)*** MUSKMELON*** MUSTARD GREENS OKRA ONION PARSLEY PARSNIPS PEAS (ALL) PEPPER (ALL)*** PERSIAN MELON*** POTATO (IRISH, SWEET) PUMPAIN*** RADISH RAPE GREENS RHUBARB RUTABAGA SHALLOT SPINACH (ALL) HZAUDZ (SUMMER, WINTER)*** TOMATILLO*** TOMATO***† TURNIP WATERCRESS*** WATERMELON*** YAMS

CHERIMOYA

COFFEE

DATES

FIGS

GENIP

GUAVA

JABOTICABA

JACKERUIT

LONGAN

TACHEE

MANGO

PAPAYA

PASSION FRUIT PERSIMMONS

PINEAPPLE****

SAPOTE (BLACK, MAMEY

POMEGRANATE SAPODILLA

WHITE)

SOURSOP

TAMARIND

TEA

SUGAR APPLE

COCOA BEANS

SMALL FRUITS AND BERRIES BLACKBERRY BLUEBERRY BOYSENBERRY CRANBERRY CURRANT DEWBERRY **ELDERBERRY** GOOSEBERRY HUCKLEBERRY LOGANBERRY OLALLIEBERRY

GOURDS***

GROUND CHERRY***

HONEYDEW MELON***

RASPBERRY (BLACK, RED) FORAGE CROPS AND LEGUMES ALFALFA* FORAGE GRASSES* FORAGE LEGUMES* IROPICAL CROPS

ACEROLA **ATEMOYA** AVOCADO BANANA (PLANTAINS) BREADFRUIT CANISTEL

CARAMBOLA *Spot treatments may be applied in these crops.

**Do not treat rice fields or fevees when the fields contain flood

***Apply only prior to planting. Allow at least 3 days between application and planting.

****Do not feed or graze treated pineapple forage following applica-

fluse is restricted to direct seeded crops only.

When applying this product prior to transplanting crops into plastic mulch, care must be taken to remove residues of this product from the plastic prior to transplanting. Residues can be removed by 0.5 inch natural rainfall or by applying water via a sprinkler irrigation system.

Spot Treatment (Only those crops with "" can be spot treated.) — Applications in growing crops must be made prior to heading of small grains and milo, initial pod set in soybeans, silking of corn, or bolf opening on cotton.

For forage grasses and forage legumes see "SPOT TREATMENT" in the "PASTURES" section of "CROPPING SYSTEMS" in this label.

For dilution and rates of application using boom or hand-held equipment, see "MIXING, ADDITIVES and APPLICATION INSTRUCTIONS" and "WEEDS CONTROLLED" sections of this label.

NOTE: FOR FORAGE GRASSES AND FORAGE LEGUMES, NO MORE THAN ONE-TENTH OF ANY ACRE SHOULD BE TREATED AT ONE TIME. FOR ALL OTHER CROPS, DO NOT TREAT MORE THAN 10 PERCENT OF THE TOTAL FIELD AREA TO BE HARVESTED.

THE CROP RECEIVING SPRAY IN TREATED AREA WILL BE KILLED. TAKE CARE TO AVOID DRIFT OR SPRAY OUTSIDE TARGET AREA FOR THE SAME REASON.

Selective Equipment—This product may be applied through recirculating sprayers, shielded applicators or wiper applicators in cotton and soybeans. Shielded and wiper applicators may also be used in tree crops and grapes. Wiper applicators may be used in wheat, rutabagas, forage grasses and forage legumes, including pasture sites and grain sorghum (milo).

See the "SELECTIVE EQUIPMENT" part of the "APPLICATION EQUIPMENT and TECHNIQUES" section of this label for information on proper use and calibration of this equipment.

Allow at least the following time intervals between application and

Cotton, Soybeans	7 days
Apples, Citrus, Pear	l day
Atemoya, Avocado. Breadfruit, Canistet, Carambola, Cherry, Grapes, Dates, Jaboticaba, Jackfruit, Longan, Lychee, Passion Fruit, Persimmons, Rutabagas,	
Sapodilla, Sapote, Soursop, Sugar Apple, Tamarind	14 days
Stone Fruit	17 days
Nut Crops, except pistachios	. 3 days
Pistachio nuts	21 days
Wheat!	
Sorghum (mito)1.2	40 days
Do not use roller applicators.	

² Do not feed or graze treated milo fodder. Do not ensile treated vegetation.

ASPARAGUS

When applied as directed for "CROPPING SYSTEMS" under the conditions described, this product controls weeds listed on this label in asparagus.

For specific rates of applications and instructions for control of various annual and perennial weeds, see the "WEEDS CONTROLLED" section of this label.

Prior to Crop Emergence—Apply this product prior to crop emergence for the control of emerged labeled annual and perennial weeds. DO NOT APPLY WITHIN A WEEK BEFORE THE FIRST SPEARS EMERGE.

Spot Treatment—Apply this product immediately after cutting, but prior to the emergence of new spears. Do not treat more than 10 percent of the total field area to be harvested. Do not harvest within 5 days of treatment.

Postharvest—Apply this product after the last harvest and all spears have been removed. If spears are allowed to regrow, delay application until ferns have developed. Delayed treatments should be applied as directed or shielded spray in order to avoid contact of the spray with ferns, stems or spears. Direct contact of the spray with the asparagus may result in serious crop injury.

NOTE: Select and use recommended types of spray equipment for postemergence postharvest applications. A directed spray is any application where the spray pattern is aligned in such a way as to avoid direct contact of the spray with the crop. A shielded spray is any application where a physical barrier is positioned and maintained between the spray and the crop to prevent contact of spray with the crop.

BERRIES AND SMALL FRUITS

Wiper applicators may be used in cranberries in accordance with instructions in this section.

For other berries, apply as a preplant broadcast application, or as a directed spray or wiper application post-planting.

See "GENERAL INFORMATION" and "MIXING, ADDITIVES and APPLI-CATION INSTRUCTIONS" sections of this label for essential product performance information.

See the "SELECTIVE EQUIPMENT" part of the "APPLICATION EQUIP-MENT and TECHNIQUES" section of this label for information on recommended use and calibration of this equipment.

Allow a minimum of 30 days between last application and harvest of cranberries. For other small fruits and berries, allow a minimum of 14 days between last application and harvest.

For Wick or other Wiper Applicators—Mix 1 gallon of this product in 4 gallons of water to prepare a 20 percent solution.

In severe infestations, reduce equipment ground speed to ensure that adequate amounts of this product are wiped on the weeds. A second treatment in the opposite direction may be beneficial.

Do not permit herbicide solution to contact desirable vegetation, including green shoots, canes or foliage.

CORN

Hooded Sprayers—This product may be used through hooded sprayers for weed control between the rows of corn. Only hooded sprayers that completely enclose the spray pattern may be used.

A hooded sprayer is a type of shielded applicator. The spray pattern is completely enclosed on the top and all 4 sides by a hood, thereby shielding the crop from the spray solution. This equipment must be set up and operated in a manner that avoids bouncing or raising the hoods off the ground in any way. If the hoods are raised, spray particles may escape and come into contact with the crop, causing damage or destruction of the crop. The spray hoods must be operated on the ground or skimming across the ground. Tractor speed must be adjusted to avoid bouncing of the spray hoods. Avoid operation on rough or sloping ground where the spray hoods might be raised off the ground.

When applying to corn that is grown on raised beds, ensure that the hood is designed to completely enclose the spray solution. If necessary, extend the front and rear flaps of the hoods to reach the ground in deep furrows.

Follow these requirements:

- The spray hoods must be operated on the ground or skimming across the ground.
- Oo not apply more than 1 quart of this product per acre per application.
- Corn must be at least 12 inches tall, measured without extending leaves.
- Leave at least an 8 inch untreated strip over the drill row. For example, if the crop row width is 38 inches, the maximum width of the spray hood should be 30 inches.

- Maximum tractor speed: 5 mph.
- · Maximum wind speed: 10 mph.
- · Use low-drift nozzles.

Crop injury may occur when the foliage of treated weeds comes into direct contact with leaves of the crop. Do not apply this product when the leaves of the crop are growing in direct contact with weeds to be treated. Oroplets, mist, foam or splatter of the herbicide solution may contact the crop and cause discoloration, stunting or destruction.

Contact of this product in any manner to any vegetation to which treatment in not intended may cause damage. Such damage shall be the sole responsibility of the applicator.

For specific rates of application and instructions for control of various annual and perennial weeds, see the "WEEDS CONTROLLED" section of this label.

Do not graze or feed corn forage or fodder following applications of this product through hooded sprayers.

Do not apply more than 3 quarts of this product per acre per year for hooded sprayer applications.

FALLOW AND REDUCED TILLAGE SYSTEMS

FOR AERIAL APPLICATION IN CALIFORNIA, REFER TO SUPPLEMENTAL LABEL.

Use this product in fallow and reduced tillage systems for control of annual weeds prior to emergence of crops listed in this label. Refer to the "WEEDS CONTROLLED" section of this label for specific rates and instructions. This product may be applied using ground or aerial spray equipment. See the "APPLICATION EQUIPMENT and TECHNIQUES" section of this label for instructions.

TANK MIXTURES

SILHOUETTE® plus BANVEL plus Nonionic Surfactant

SILHOUETTE plus 2,4-D plus nonionic surfactant

SILHOUETTE plus GOALTA plus NONIONIC SURFACTANT

DO NOT APPLY BANVEL OR 2.4-D TANK MOXTURES BY AIR IN CALI-

Applications of 2,4-0 or Banvel must be made at least 7 days prior to planting corn

The addition of Banvel in a mixture with this product may provide short-term residual control of selected weed species. Some crop injury may occur if Banvel is applied within 45 days of planting. Refer to the Banvel and 2,4-D labels for cropping restrictions and other use instructions.

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Silhouette® plus Goal Tank Mixtures

This product alone or in tank mixtures with Goal plus 0.5 to $1\ \mathrm{percent}$ nonionic surfactant by total spray volume will provide control of those

Make applications when weeds are actively growing and at the recommended stages of growth. Avoid spraying when weeds are subject to moisture stress, when dust is on the follage or when straw canopy

Silhovette 12 ffui Wheat Barley Bluegrass, annual Barnyardgrass Rye	d oz/acre 18"+ 12" 6" 6" 6"	Silhovette 16 flu Annual grasses at te Ryegrass, annual Chickweed Groundsel Marestail Rocket, London Shepherdspurse Crabgrass Johnsongrass, seedling Lambsquarters Oats, wild	
		Pigweed, redroot Mustards	127
		Mustards	12

NOTE: Use 32 fluid ounces of this product per acre where heavy weed

Silhouette 12 fluid oz/acre + GOAL** 2 to 4 fluid oz/acre Annual grasses above plus: Cheeseweed,		Silhouette 16 fluid oz/acre + GOAL** 2 to 4 fluid oz/acre Annual weeds above plus: Checseweed.	
Common 3" Chickweed 3" Groundsel 3" Rocket, London 6" Shepherdspurse 6"	common Graundsel Chickweed 1: Rocket, Landon 1:	6" 6" 12" 12" 12"	

NOTE: Use 32 fluid ounces of this product per acre in mixtures with 2 to 4 fluid ounces of Goal per acre where heavy weed densities exist. *Maximum height or length in inches.

** Use the higher rate of Goal when weeds approach maximum recommended height or stands are dense.

These recommended tank mixtures may be applied using ground or aerial spray equipment. Refer to the "WEEDS CONTROLLED" section of this label for specific rates and instructions.

ECOFARMING SYSTEMS

The recommendations made in this section are not registered for use in California.

The Ecofarming System consists of the following rotation: winter wheat, corn/sorghum, ecofallow.

Use the following tank mixtures for control of emerged annual weeds before planting corn or sorghum in the Ecofarming System.

- Silhouette® at 16 to 20 fluid ounces per acre plus
 - 2,4-D at 0.375 to 0.5 pound a.i. per acre zulq

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- Atrazine at 0.75 to 1 pound a.i. per acre plus
- Lasso® at 2.5 to 3 quarts per acre

The above tank mixture should be applied in 28-0-0 or 32-0-0 liquid fertilizer carrier at 20 to 30 gallons per acre. The liquid fertilizer may be diluted with water to achieve the desired carrier volume.

WEEDS CONTROLLED - The following weeds, up to a maximum height of 4 inches, will be controlled:

Brome, downy
Bromus tectorum

Lactuca serriola

Cheat Bromus secalinus Pigweed, redroot . Amaranthus retroflexus

Foxtail, green Setaria viridis Thistle, Russian Salsola kali

Fortail, yellow Setaria lutescens Wheat, volunteer Triticum aestivum

Kochia*

Kochia scopana

*For improved control of kochia, add 4 fluid ounces per acre (0.125 oound a.i. per acre) of Banvel to the above tank mixture.

Risk of crop injury from 2.4-D or Banvel can be reduced by applying this treatment 7 to 14 days before planting.

Refer to the label booklet for Lasso® herbicide for preemergence weed control achieved by this tank mixture.

Refer to the specific product labels for crop rotation restrictions and cautionary statements for all products used in these tank mixtures.

AID TO TILLAGE

This product, when used in conjunction with preplant tillage practices, will provide control of downy brome, cheat, volunteer wheat, tansy mustard and footail. Apply 8 fluid ounces of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. Make applications when weeds are actively growing and before they are 6 inches in height. Application must be followed by conventional tillage practices no later than 15 days after treatment

and before regrowth occurs. Allow at least 1 day after application before tillage. Tank mixtures with residual harbicides may result in reduced performance.

POSTHARVEST GRAIN SORGHUM, SORGHUM REGROWTH CONTROL

This product may be applied to grain sorghum (mile) stubble following harvest to suppress or control regrowth. Apply 1 quart of this product per acre for control, or 1.5 pints of this product per acre for suppression. Use 0.5 percent nonionic surfactant in 3 to 10 gallons of spray solution per acre.

PASTURES

Apply this product prior to planting forage grasses and legumes.

Pasture or Hay Crop Renovation—When applied as a broadcast spray, this product controls the annual and perennial weeds listed in this label prior to planting forage grasses or legumes. Remove domestic livestock before application and wait 8 weeks after application before grazing or harvesting.

Spot Treatment—When applied as a spot treatment as recommended, this product controls annual and perennial weeds listed in this label which are growing in pastures, forage grasses and forage legumes composed of bahiagrass, bermudagrass, bluegrass, brome, lescue, orchardgrass, ryegrass, timothy, wheatgrass, alfalfa or clover.

Wiper Application—When applied as directed, this product controls or suppresses the weeds listed under "WIPER APPLICATORS" in the "SELECTIVE EQUIPMENT" section of this label.

For spot treatment and wiper application, apply in areas where the movement of domestic livestock can be controlled. No more than one-tenth of any acre should be treated at one time. Further applications may be made in the same area at 30-day intervals. Remove domestic livestock before application and wait 14 days after application before grazing livestock or harvesting.

SUGARCANE

When applied as directed for "CROPPING SYSTEMS", under the conditions described, this product controls those emerged annual and perennial weeds listed on this label growing in or around sugercane or in fields prior to the emergence of plant cane. This product will also control undesirable sugarcane.

NOTE: Where repeat treatments are necessary, do not exceed a total of 10.5 quarts of this product per acre per year. Do not apply to vegetation in or around ditches, canals or ponds containing water to be used for irrigation.

Broadcast Treatment—Apply this product in 10 to 40 gallons of water per acre on emerged weeds prior to the emergence of plant cane.

For specific rates of application and instructions for control of various annual and perennial weeds, see the "WEEDS CONTROLLED" section of this label

For removal of last stubble or ration cane, apply 4 to 5 quarts of this product in 10 to 40 gallons of water per acre to new growth having at least 7 or more new leaves. Allow 7 or more days after application before tillage.

Spot Treatment in or Around Sugarcane Fields—For dilution and rates of application using hand-held equipment, see "MDNNG, ADDITIVES and APPLICATION INSTRUCTIONS" and "WEEDS CONTROLLED" sections of this label.

For control of volunteer or diseased sugarcane, make a 1 percent solution of this product in water and spray to wet the foliage of vegetation to be controlled.

NOTE: When spraying volunteer or diseased sugarcane, the plants should have at least 7 new leaves.

Avoid spray contact with healthy cane plants since severe damage or destruction may result.

Do not feed or graze treated sugarcane forage following application.

CONSERVATION TILLAGE, MINIMUM TILLAGE AND NO-TILL SYSTEMS CORN AND SOYBEANS Tank Mixtures

The recommendations made in this section are not registered for use in California

When applied as recommended under the conditions described, the tank mixtures listed in this section control many emerged weeds, and give preemergence control of many annual weeds where corn or soybeans will be planted directly into a cover crop, established sod or in previous crop residues.

Refer to specific product labels for crop rotation restrictions and cautionary statements of all products used in these tank mixtures. For mixing instructions, see the "MIXING, ADDITIVES and APPLICATION INSTRUCTIONS" section of this label.

Apply these tank mixtures in 10 to 20 gallons of water or 10 to 60 gallons of nitrogen solution per acre before, during or after planting. Do not apply these mixtures after crop emergence.

When tank mixing with residual herbicides, add an agriculturally approved nonionic surfactant at 0.5 to 1 percent by volume of spray solution. The addition of 1 to 2 percent dry ammonium sulfate by weight may increase the performance of this product.

NOTE: When using these tank mixtures, do not exceed 4 quarts of this product per acre.

CORN

For residual control, this product may be tank-mixed with the following herbicides or combination of herbicides:

LASSO/ALACHLOR ATRAZINE
LARIAT® CYANAZINE
BULLET® SIMAZINE
DUAL™ PROWL™
BICEP™ MICRO-TECH®
PARTNER®

For improved burndown, this product may be tank-mixed with 2,4-D or dicamba. Applications of 2,4-D or dicamba must be made at least 7 days grior to planting corn. See the "WEEDS CONTROLLED" section for specific rate information.

SOYBEANS

For residual control, this product may be tank-mixed with the following herbicides or combination of herbicides:

CANOPY™ LOROX™ PLUS COMMAND™ PREVIEW™ DUAL PROWL **GEMINIEM** TURBO^{IN} LAS\$0/ALACHLOR SCEPTERIM SENCOR** LEXONETAL SQUADRON™ LINURON PURSUIT™ PURSUIT PLUS™ PARTNER MICRO-TECH®

For improved burndown, this product may be tank-mixed with the following herbicides:

2,4-DB 2,4-O*

*See the label for 2.4-D for intervals between application and planting.

CORN AND SOYBEANS

Annual Weeds—For difficult-to-control weeds such as fall panicum, barnyardgrass, crabgrass, shattercane and broadleaf signalgrass up to 2 inches tall, and Pennsylvania smartweed up to 6 inches tall, apply this product at 2 pints per acre in these tank mixtures. For other labeled annual weeds, apply 1 to 1.5 pints of this product per acre when weeds are less than 6 inches tall, and 2 to 3 pints when weeds are over 6 inches tall. For a complete list of annual weeds controlled, see the "WEEDS CONTROLLED" section of this label.

Perennial Weeds—At normal application times in minimum tillage systems, perennial weeds may not be at the proper stage of growth for control. See the "WEEDS CONTROLLED" section of this label for the proper stage of growth for perennial weeds.

Use of 2 to 4 quarts of this product per acre in the tank mixtures mentioned above, under these conditions provides top kill and reduces competition from many emerged perennial grass and broadleaf weeds. For emerged perennial weeds controlled, see the "WEEDS CONTROLLED" section of this label.

To obtain the desired stage of growth, it may be necessary to apply this product alone in the late summer or fall and then follow with a label-approved, seedling weed-control program at planting.

USE OF THESE TANK MIXTURES FOR BERMUDAGRASS OR JOHN-SONGRASS CONTROL IN MINIMUM TILLAGE SYSTEMS IS NOT REC-OMMENDED. For bermudagrass control, follow the instructions under "CONTROL OF PERENNIAL WEEDS" section of this label and then use a label-approved, seedling weed-control program in a minimum tillage or conventional tillage system. For Johnsongrass control, follow instructions under "CONTROL OF PERENNIAL WEEDS" section of this label, and then use a label-approved, seedling weed-control program with conventional tillage.

PREHARVEST APPLICATIONS

When applied as directed under the conditions described, this product controls annual and perennial weeds listed on this label prior to the harvest of cotton, soybeans, grain sorghum (mile), and wheat.

For specific rates and application instructions for control of various annual and perennial weeds, see the "WEEDS CONTROLLED" section of this label

This product may be applied by both ground and aerial application equipment. DO NOT APPLY MORE THAN 1 QUART PER ACRE OF THIS PRODUCT BY AIR. See the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label for instructions for ground and aerial applications.

NOTE: Do not apply to crops grown for seed. Reduction in germination or vigor may occur.

The use of this product for preharvest grain sorghum (milo) is not registered in California.

SOYBEANS

Apply after pods have set and lost all green color. Allow a minimum of I days between application and harvest of soybeans. Care should be taken to avoid excessive seed shatter loss due to ground application equipment.

Do not graze or harvest treated crop for livestock feed within 25 days of last preharvest application.

DO NOT APPLY MORE THAN 6 QUARTS PER ACRE OF THIS PRODUCT FOR PREHARVEST APPLICATIONS.

COTTON

Broadcast Applications—This product may be applied using either aerial or ground spray equipment. For ground applications with broadcast equipment, apply this product in 10 to 20 gallons of water per acre. For aerial applications, apply this product in 3 to 10 gallons of water per acre.

This product provides weed control and cotton regrowth inhibition when applied prior to the harvest of cotton. Apply 1 to 2 quarts of this product in 3 to 10 gallons of water per acre for cotton regrowth inhibition. Do not apply more than 2 quarts of this product per acre for pre-harvest applications. THE USE OF ADDITIVES FOR PREHARVEST APPLICATION TO COTTON IS PROHIBITED.

This product may be tank mixed with DEF^{IM} 6, Folex^{IM}, or PrepTM to provide additional enhancement of cotton leaf drop.

Allow a minimum of 7 days between application and harvest of cotton.

Apply after sufficient bolls have developed to produce the desired yield of cotton. Applications made prior to this time could affect maximum yield potential.

Do not feed or graze treated cotton forage or hay following preharvest applications.

GRAIN SORGHUM (MILO)

Make applications at 30% grain moisture or less and at least 7 days prior to harvest.

Apply up to 2 quarts of this product per acre.

WHEAT

Apply after the hard-dough stage of grain (30% or less grain moisture) and at least 7 days prior to harvest.

DO NOT APPLY MORE THAN 1 QUART PER ACRE OF THIS PRODUCT FOR PREHARVEST APPLICATIONS TO WHEAT.

TREE AND VINE CROPS

This product is recommended for weed control in established groves, vineyards, and orchards, or for site preparation prior to transplanting crops listed in this section. Applications may be made with boom equipment, CDA, shielded sprayers, hand-held and high-volume wands, lances, orchard guns or with wiper applicator equipment, except as directed in this section. See the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label for specific information on use of equipment.

When applying this product, refer to the "WEEDS CONTROLLED" section of this label and to specific recommendations in this section for rates to be used.

NOTE

Repeat treatments may be necessary to control weeds originating from underground parts of untreated weeds or from seeds. This product does not provide residual weed control. For subsequent weed control, use repeated applications of this product. Do not apply more than 10.5 quarts of this product per acre per year.

EXTREME CARE MUST BE EXERCISED TO AVOID CONTACT OF HERBI-CIDE SOLUTION, SPRAY DRIFT OR MIST WITH FOLIAGE OR GREEN BARK OF TRUNK, BRANCHES, SUCKERS, FRUIT OR OTHER PARTS OF TREES OR VINES. CONTACT OF THIS PRODUCT WITH OTHER THAN MATURED BROWN BARK CAN RESULT IN SERIOUS CROP DAMAGE.

AVOID PAINTING OUT STUMPS WITH THIS PRODUCT AS INJURY RESULTING FROM ROOT GRAFTING MAY OCCUR IN ADJACENT TREES.

Reduced control may result when applications are made to annual or perennial weeds that have been mowed, grazed or cut and have not been allowed to regrow to the recommended stage for treatment.

For specific rates of applications and instructions, see the "WEEDS CONTROLLED" section of this label, and to specific recommendations which follow.

MIDDLES MANAGEMENT

FOR ANNUAL WEEDS IN MIDDLES BETWEEN ROWS OF TREE AND VINE CROPS

For citrus crops, treat uniformly between trees.

SILHOUETTE®

SILHOUETTE plus GOAL

This product alone or in mixtures with Goal will control or suppress the annual weeds listed below.

Apply the recommended rates of this product, either alone or in mixtures with Goal, plus 0.5 to 1 percent nonionic surfactant by spray volume in 3 to 10 gallons of water per acre. Apply when weeds are actively growing and less than 6 inches in height or diameter. If weeds are under drought stress, irrigate prior to application. Reduced control may occur if weeds have been mowed prior to application. Up to 48 fluid ounces per acre of this product may be used to control weeds, which have been mowed, are stressed or are growing in dense populations.

WEED SPECIES	MAXIMUM HEIGHT/ DIAMETER (INCHES)	RATE PE SILHOUETTE (FLUID DUNCES)	
Barley Hordeum vulgare	6	8	
Bluegrass, annual Poa annua			
Barnyardgrass Echinochloa crus-galli	6	12	_
Chickweed, common Stellaria media		<u>{</u>	-
Red Maids Calandrinia ciliata			

MAXIMUM HEIGHT/ DIAMETER (INCHES)	RATE PER ACRE SILHOUETTE® GOAL (FLUID (FLUID OUNCES) OUNCES)
6	16 —
	OR
	16 to 32 + 4 to 16**
i	
3,	12 to 32 + 4 to 16
6	. 16 to 32 + 4 to 16
	HEIGHT/ DIAMETER (INCHES) 6

Filaree* Erodium spp.		
Horseweed/Marestail Conyza canadensis	!	•
Nettle, stinging Urtica dioica		
Purselane, common* Purtulaca oleracea		

^{*}Suppression only.

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STRIPS

FOR ANNUAL AND PERENNIAL WEEDS IN STRIPS OF TREE AND VINE CROPS

■ TANK MIXTURES WITH RESIDUAL HERBICIDES

When applied as a tank mixture, this product provides control of the emerged annual weeds and control or suppression of emerged perennial weeds listed in this label. The following residual herbicides will provide preemergence control of those weeds listed in the individual product labels.

SILHOUETTE® plus GOAL 2XL	
SILHOUETTE plus KARMEXT* DF	
SILHOUETTE plus KROVAR I	
SILHOUETTE plus KROVAR II	
SILHOUETTE plus SIMAZINE, PRINCEP CALIBER 90	
SILHOUETTE plus SIMAZINE 4L	
SILHOUETTE plus SIMAZINE 80W	
· ·	

^{**}The mixture of this product plus Goal is recommended when weeds are stressed or growing in dense populations.

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	SILHOUETTE plus SOLICAMIM 80DF	
	SILHOUETTE plus SURFLAN AS	
	SILKOUETTE plus SURFLAN 75W	-
•	SILHOUETTE plus SIMAZINE (80W, or 4L, or Princep Caliber 90) plus Surflan (AS or 75W)	•
	SILHOUETTE plus GOAL 2XL plus Surflan (AS or 75W)	
•	SILHOUETTE plus GOAL 2XL plus SIMAZINE (80W, of 4L, or PRINCEP CALIBER 90)	•
•	SILHOUETTE plus GOAL 2XL plus Surflan (AS or 75W) plus SIMAZINE (80W, 4L,	=

Do not apply these tank mixtures in Puerto Rico.

When tank-mixing with residual herbicides, add an agriculturally approved nonionic surfactant at 0.5 to 1 percent by volume of spray solution.

or PRINCEP CALIBER 90)

Refer to the individual product labels for specific crops, rates, geographical restrictions and precautionary statements.

Read and carefully observe the label claims, cautionary statements, rates and all other information on the labels of all products.

RECOMMENDED RATES

Annual Weeds—Apply 1 to 5 quarts per acre of this product in these tank mixtures. Use rates at the higher end of the recommended range when weeds are stressed, growing in dense populations or are greater than 12 inches tall.

Perennial Weeds—Apply 1 pint to 5 quarts per acre of this product in these tank mixtures to control or suppress perennial weeds. Follow the recommendations in the "WEEDS CONTROLLED" section of this label for stage of growth and application rates for specific perennial weeds.

■ SILHDUETTE® plus GOAL plus SIMAZINE/SURFLAN ■

This product plus low rates of Goal in 3-way or 4-way mixtures with simazine and/or Surflan will provide postemergence control of the weeds listed below.

Refer to the individual simazine and Surflan labels for preemergence rates, weeds controlled, precautionary statements and other important information.

Apply these tank mixtures in 3 to 40 gallons of water, Add 0.5 to 1 percent nonionic surfactant by total spray volume to the spray solution.

Apply 1 to 5 quarts per acre of this product plus 4 to 48 fluid ounces per acre of Goal plus labeled rates of simazine and/or Surflan to control the following weeds:

Bartey, wild	Horseweed/Marestail						
Hordeum leporinum	Conyza canadensis						
Bluegrass, annual	Nettle, stinging						
Poa annua	Unica dioica						
Cheeseweed, common	Pineappleweed						
Malva spp.	Matricaria matricariodes						
Chickweed, common	Rocket, London						
Stellaria media	Sisymbrium irio						
ilaree*	Shepherdspurse						

Erodium spp. Capsella bursa-pastoris
Fleabane, hairy Sowthistle, annual
Conyza bonariensis Sonchus oleraceus

Groundset, common Senecio vulgaris

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*Use a minimum of 1.5 quarts of this product in these mixtures.

NOTE: This recommendation does not preclude the use of Goal in these mixtures at higher, labeled rates for preemergence weed control.

■ PERENNIAL GRASS SUPPRESSION ORCHARD FLOORS

When applied as directed, this product will suppress vegetative growth as indicated below.

<u>Bahiagrass</u>

This product will provide significant inhibition of seedhead emergence and will suppress vegetative growth for a period of approximately 45 days with a single application and approximately 120 days with sequential applications. Apply this product 1 to 2 weeks after full green-up or after mowing to a uniform height of 3 to 4 inches. Applications must be made prior to seedhead emergence. Apply 6 fluid ounces of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 10 to 25 gallons of water per acre.

Sequential applications of this product plus nonionic surfactant may be made at approximately 45-day intervals to extend the period of seedhead and vegetative growth suppression. For continued seedhead suppression, sequential applications must be made prior to seedhead emergence. Apply no more than 2 sequential applications per year. As a fust sequential application, apply 4 fluid ounces of this product plus nonionic surfactant. A second sequential application of 2 to 4 fluid ounces may be made approximately 45 days after the last application.

Bermudaeras

For burndown, apply 1 to 2 quarts of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 20 gallons of water per acre. Use 1 quart of this product in 3 to 20 gallons of water per acre east of the Rocky Mountains. Use 1 to 2 quarts of this product in 3 to 10 gallons of water per acre west of the Rocky Mountains. Use this treatment only if reduction of the bermudagrass stand can be tolerated. When burndown is required prior to harvest, allow at feast 21 days to ensure sufficient time for burndown to occur.

Suppression only (east of the Rocky Mountains)—Apply 5 to 16 fluid ounces of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 20 gellons of water per acre no sooner than 1 to 2 weeks after full green-up. Mowing prior to application may occur provided a minimum height of 3 inches is maintained. Rates of 6 to 10 fluid dunces of this product plus nonionic surfactant should be used in shaded conditions or where a lesser degree of suppression is desired. Sequential applications may be made when regrowth occurs and bermudagrass injury and stand reduction can be tolerated.

Suppression only (west of the Rocky Mountains)—Apply 16 fluid ounces of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre to bermudagrass up to 6 inches in height and no sooner than 1 to 2 weeks after full green-up. Mowing prior to application may occur provided a minimum height of 3 inches is maintained. Sequential applications may be made when regrowth occurs and bermudagrass injury and stand reduction can be tolerated.

Cool Season Grass Covers

for suppression of tall fescue, fine fescue, orchardgrass and quackgrass, apply 8 fluid ounces of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 10 to 20 gallons of water per acre. For best suppression, add ammonium sulfate to the spray solution at a rate of 2 percent by weight or 17 pounds per 100 gallons of spray solution.

For suppression of Kentucky bluegrass covers, apply 6 fluid ounces of this product plus 0.5 to 1 percent nonionic surfactant. Do not add ammonium sulfate.

For best results, mow cool-season grass covers in the spring to even their height and apply the recommended rate of this product 3 to 4 days after mowing. Avoid treating cool season grass covers under poor growing conditions, such as drought stress (drip irrigation), disease or insect damage.

LOW VOLUME APPLICATION (FLORIDA AND TEXAS)

For burndown or control of the weeds listed, apply the recommended rates of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 30 gallons of water per acre. Where weed foliage is dense, use 10 to 30 gallons of water per acre.

Annual Weeds

Goatweed—Apply 2 to 3 quarts per acre of this product plus 17 pounds of ammonium sulfate per 100 gallons of water plus 0.5 to 1 percent nonionic surfactant by total spray volume. Apply in 20 to 30 gallons of water per acre when plants are actively growing. Use 2 quarts per acre when plants are tess than 8 inches tall and 3 quarts per acre when plants are greater than 8 inches if goatweed is greater than 8 inches tall, the addition of Krovar II or Karmex may improve control. Use labeled rates for these residual products.

Read and carefully observe the label claims, cautionary statements, rates and all other information on the Krovar II and Karmex labels.

Perennial Weeds

Apply when weeds are actively growing and at the growth stages listed in the "PERENNIAL WEEDS CONTROLLED" section of this label. If perennial weeds are mowed, allow weeds to regrow to the recommended stage of growth.

S = Suppression PC = Partial control	B = Burndown C = Control							
WEED	Sithouette® RATE PER ACRE							
SPECIES :	l qt	2 qts	3 qls	5 qts				
Веппидавтась	В	•	PC	С				
Guineagrass Texas and Florida Ridge Florida Flatwoods	В	C B	C C	C C				
Paragrass	В	, C	C	С				
Torpedograss	S	•	PC	C				

TREE CROPS

Citrus*****: calamondin, chironja, citron, grapefruit, kumquat, lemon, lime, mandarin orange, orange, pummelo, tangelo, tangerine, tangors.

Nuts**: almond, beechnut, Brazil nut, butternut, cashew, chestnuts, chinquapin, filbert, hazel nut, hickory nut, macadamia, pecan, pistachio, walnut.

Pome Fruit****: apple, loquat, mayhaw, pear, quince.

Stone Fruit***: apricots, cherries, nectarines, olives, peaches, plums/prunes.

For chemies, any application equipment listed in this section may be used in all states.

For citron and olives, apply as a directed spray only.

Any application equipment listed in this section may be used in apricots, nectarines, peaches and plums/prunes growing in Arizona, California, Colorado, Idaho, Kansas, Kentucky, New Jersey, North Dakota, Oklahoma, Oregon, Texas, Utah and Washington, except for peaches grown in the states specified in the following paragraph. In all other states use wiper equipment only.

For PEACHES grown in Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina and Tennessee only, apply with a shielded boom sprayer or shielded wiper applicator, which prevents any contact of this product with the foliage or bark of trees. Apply no later than 90 days after first bloom. Applications made after this time may result in severe damage. Remove suckers and low-hanging limbs at least 10 days prior to application. Avoid applications near trees with recent pruning wounds or other mechanical injury, Apply only near trees which have been planted in the orchard for 2 or more years. EXTREME CARE MUST BE TAKEN TO ENSURE NO PART OF THE PEACH TREE IS CONTACTED.

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Iropical Fruit: acerola*, atemoya*, avocado*, banana*****, breadiruit*, canistel*, carambola*, cherimoya*, cocoa beans*, cofee****, dates*, figs*, genip*, guava*****, jaboticaba*, jackfruit*, longan*, lychee*, mango*, mayhaw*, papaya*****, passion fruit*, persimmons*, plantains****, pomegranate*, sapodilla*, sapote*, soursop*, sugar apple*, tamarind*, tea*, in coffee and banana, delay applications 3 months after transplanting to allow the new coffee or banana plant to become established.

NOTE:

- *Allow a minimum of 14 days between last application and harvest.
- **Allow a minimum of 3 days between last application and harvest of these crops, except pistachio nuts. For pistachio nuts allow a minimum of 21 days between last application and harvest
- ***Allow a minimum of 17 days between last application and harvest
- ****Allow a minimum of 28 days between last application and harvest.
- *****Allow a minimum of 1 day between last application and harves!

VINE CROPS

Kiwi Fruit

Grapes: Any variety of table, wine or raisin grape may be treated with any equipment fisted in this section.

Applications should not be made when green shoots, cames, or foliage are in the spray zone.

Allow a minimum of 14 days between last application and harvest. In the northeast and Great Lakes regions, applications must be made prior to the end of bloom stage of grapes to avoid injury.

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MMicrofoil is a trademark of Union Carbide Agricultural Products.

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This product is protected by U.S. Patent No. 4,405,531. Other patents pending. No license granted under any non-U.S. patent(s).

EPA Reg. No. 524-445-1381

21149V1-1/53

In case of an emergency involving this product. Call Collect, day or night, (314) 694-4000.

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Manufuctured for: Cenex/Land O' Lakes Agronomy Company P.O. Box 64089 St. Paul, MN 55164 U.S.A.

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EPA Reg. No. 524-445-1381

2)149V1-1/53

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Please read instructions	Please read instructions on reverse before completing form. Form As				oved. OMB No	o. 2070-0060.	. Approval expires 05-31-98		
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		Applicatio	n for Pestic	de - Sect	tion I	<u></u>			
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Name Dr. Russel	1 P. Schneider		ты Agricu Regula	ltural tion Dire	ector	Telephon (202)	ne No. (Include Area Code) 783-2460		
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PAPERWORK REDUCTION ACT NOTICE and INSTRUCTIONS

PAPERWORK REDUCTION ACT NOTICE: Public reporting burden for this collection of information is estimated to average 0.85 hour per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and complating and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Chief, Information Policy Branch, (2136), U.S. Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460.

<u>INSTRUCTIONS</u>: This form is to be used for all applications for new registration, end use reregistration, amendment, resubmission, to applications for notifications, final printed labeling, reregistration, etc. In order to process an application for a new registration submitted on this form, the following material must accompany the application:

- 1. Certification with Respect to Citation of Data (EPA Form 8570-29). [If not exampted by 40 CFR 152.81 (b) (4)];
- 2. Confidential Statement of Formula (EPA Form 8570-4);
- 3. Formulator's Exemption, Statement (EPA Form 8570-27);
- 4. Five copies of draft labeling;
- 5. Three copies of any data submitted;
- 6. Authorization letter where applicable;
- Matrices where applicable.

Submission of Labeling - Labeling should first be submitted in the form of dreft labels with all applications for new registration. Such draft labels may be in the form of typed label text on 8.5 x 11 inch paper for submission or a mockup of the proposed label. If prepared for mockup, it should be constructed in a way as to facilitate storage in an 8.5 x 11 inch file. Mockup labels significantly smaller than 8.5 x 11 inches should be mounted on 8.5 x 11 inch paper for submission.

Submission of Data - Data submitted in support of this application must be submitted in accordance with PR Notice 86-5.

SPECIFIC INSTRUCTIONS: Please read the instructions fisted below before completing this application. First determine the type of registration action, listed in Block A, for which you are submitting this application:—For applications submitted in connection with New Registration actions, Sections I, III, and IV must be completed by the applicant. For applications submitted in connection with amended reregistration actions, resubmissions, and it must be completed by the applicant.

Block A - Check the appropriate action for which you are submitting this form.

SECTION ! - This section must be completed, as applicable, for all registration actions.

- Company/Product Number Insert your Company Number, if one has been assigned by EPA. This number may have been assigned to you as a
 basic registrant, a distributor, or as an establishment. If your product is registered, insert the Product Number.
- 2. EPA Product Manager If known, fill in the name and PM number of the EPA Product Manager.
- 3. Proposed Classification Specify the proposed classification of this product.:
- 4. Product Name Enter the complete product name of this pesticide as it will appear on the label. The name must be specific to this product only.

 Duplication of names is not permitted among products of the same company. Do not include any brand name or company line designations.
- 5. Name and Address of Applicant The name of the firm or person and eddress shown in your application is the person or firm to whom the registration will be issued. If you are acting in behalf of another party, you must submit authorization from that party to act for them in registration matters. An applicant not residing in the United States must have an authorized agent residing in the United States to act for them in all registration matters. The name and complete mailing address of such an agent must accompany this application.
- 6. Expedited Review FIFRA section 3 (c) 3 (B) provides for expedited review of applications for registration, or amendments to existing registrations, that are similar or identical to other posticide products that are currently registered with the EPA. In order for your application to be eligible for expedited review, you must provide us with the EPA Registration Number and product name of the product you believe is similar to or identical to your product. The product must be similar or identical in both formulation and labeled uses.

SECTION II - This section must be completed for all applications submitted to amend the registration only of a currently registered product (Amendment), for a resubmission in response to an Agency letter, for notifications to the Agency, for the submission of final printed labeling; for reregistration and for any other action that pertains to a specific EPA-registered product. This section is not to be used for a new application for registration.

Subject of submission - Check the applicable block and provide the Agency letter date if appropriate. Provide a brief explanation of the purpose(s) for the submission, such as "the addition of a site, pest or crop (specify)"; "amend the Confidential Statement of Formula by..."; "reregistration submission"; "general label revision of use directions." Attach a separate page if additional space is needed.

SECTION III (Packaging and Container Information) - This Section must be completed for all applications submitted in connection with new registration of applicable amendments.

- 1. Type of Packaging Check the appropriate block if your product will be packaged in the indicated packaging types.

 Indicate the size of the individual packets and number per retail container.
- 2. Type of Retail Container Indicate type of container in which product will be marketed.
- 3. Location of Net Contents Indicate the location of the net contents information for your product.
- 4. Size(s) of Retail Container Specify the net contents of all retail containers for your product.
- 5. Location of Use Directions Indicate the location of the use directions for your product.
- 6. Manner in which label is affixed to product Indicated the method product label is attached to retail container.

SECTION IV (Correct Point) - This Section must be completed for all applications for Registration actions, i.e., new products registration, resubtraceller, "me-too," registration, etc.

1-5. Self-explanatory.

6. EPA Use Only

VESchall Applicant Dogs

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LA TOURS ARROW NOW

Please read instructions on a	reverse before completin	g form.		Form App	roved.	OMB No. 2070	<u>-0060.</u>	Approve	el expires <u>05-31-98</u>	
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5. Name and Address of Ap Monsanto Co 700 14th St Washington,	mpany reet, N.W., Sui		(b)(i), to:	6. Expedited Review. In accordance with FIFRA Section 3(c)(3) (b)(i), my product is similar or identical in composition and labeling to: EPA Reg. No.						
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Indicate the size of the individual packets and number per retail container.

- Type of Retail Container Indicate type of container in which product will be marketed.
- 3. Location of Net Contents Indicate the location of the net contents information for your product.
- 4. Size(s) of Retail Container Specify the net contents of all retail containers for your product.
- 5. Location of Use Directions Indicate the location of the use directions for your product.
- 6. Manner in which tabel, is affixed to product Indicated the method product label is attached to retail container,

SECTION IV (Contact Point) - This Section must be completed for all applications for Registration actions, i.e., new products registration, resubmission, "me tob," (aregistration, stc.

1-5. Self-explanatory.

6. EPA Use Only.

Stephon

Monsanto

Monsanto Company Suite 1100 700 14th Street, N.W. Washington, O.C. 20005

October 17, 1997

NOTIFICATION

NOV 4 - 1997

Hand Delivered

Office of Pesticide Programs
Document Processing Center (NOTIF)
U.S. Environmental Protection Agency
Room 266A, Crystal Mall #2
1921 Jefferson Davis Highway
Arlington, VA 22202

Attention:

Mr. James A. Tompkins (7505C)

Team Leader (25)

Subject:

Rascal® Herbicide

New Brand name under EPA Reg. No. 524-445

Dear Mr. Tompkins:

Monsanto herein notifies EPA of the use of a new brand name "Rascal Herbicide" for EPA Registration Number 524-445. The brand name had been used earlier on EPA Reg. No. 524-326, but was deleted from that registration number in a letter dated 15-Oct-97. Five (5) copies of draft product labeling for this new product are enclosed. The labeling is comprised completely of text that has have been already approved by the Agency on other 524-445 brands; this label is merely a rearrangement of the desired text into a single label booklet. It is identical to the label text that Monsanto has recently submitted to the Agency for other new brand names under the 524-445 registration number such as Honcho® Herbicide and Mirage® Herbicide

The underlying text for this Rascal Herbicide label was approved by EPA for Roundup® Herbicide (EPA Reg. No. 524-445) on April 6, 1994. The source of incremental changes to that Apr-94 text by incorporation of other uses from supplemental labeling was fully documented in the earlier cover letter for Honcho Herbicide, and a copy is enclosed for your reference. If you have any questions on this matter please feel free to contact me through Dr. Russell P. Schneider or directly at 314-694-1582.

Sincerely,

Stephen J. Wratten Manager, Registrations

СC

R. P. Schneider

D. Fee-White

D. Rasmusson

A. Hedgecock

Monsanto

Monsanto Company Suite 1100 700 14th Street, N.W. Washington, D.C. 20005

January 5, 1998

Hand Delivered

Office of Pesticide Programs
Document Processing Center (Final Printed Labeling)
U.S. Environmental Protection Agency
Room 266A, Crystal Mall #2
1921 Jefferson Davis Highway
Arlington, VA 22202

Attention:

Mr. James A. Tompkins (7505C)

Team Leader (25)

Subject:

Silhouette₀ Herbicide (EPA Reg. No. 524-445-1381)

Submission of Final Printed Supplemental Labels

Aerial Application in Fresno County

Dear Mr. Tompkins:

On 28-Oct-97, Monsanto submitted to EPA proposed supplemental labeling for the above product using the Notification process. A label for aerial application of Roundup₀ Herbicide (524-445) has already been approved, and this action was merely intended to extend this use to the alternate brand name "Silhouette Herbicide". Five (5) copies of the Final Printed Label are enclosed for your records. It is identified by the Print Plate Number 21149V1-5 and is dated 29-Oct-97.

In the course of finalizing this label, quality assurance review discovered that an incorrect template had been used to produce the proposed labeling submitted to EPA on 28-Oct-97, so that it contained the CAUTION signal word rather than the proper WARNING wording as required on EPA Reg. No. 524-445. This error has been corrected in the Final Printed Labeling. Monsanto emphasizes that the incorrect labeling was not printed or distributed, and the error was confined solely to the draft text submitted to the Agency.

Mr. James A. Tompkins 5-Jan-98 Page 2

A copy of the Roundup Herbicide supplemental label for Aerial Application in Fresno County is enclosed for your reference and comparison. It was approved by the Agency on 9-Dec-93 and was submitted as Final Printed Labeling on 28-Jan-94. The only text change for the Silhouette Herbicide label involve changes related to the brand name, distributor name, company number, and their decision not to include a telephone contact number.

If you have any questions on this matter please feel free to contact me through Dr. Russell P. Schneider or directly at 314-694-1582.

Sincerely,

Stephen J. Wratten

Manager, Registrations

cc:

R. P. Schneider

D. Fee-White

D. Rasmusson

A. Hedgecock

N. Zelmer, Cenex

Please read instructions on reverse be	lore completing form.	Form Appro	oved. OMB No. 2070-006	D. Approval expires 05-31-98
SEPA Enviro	United States nmental Protection A Washington, DC 20460	Registration Amendment Other	OPP Identifier Number	
	Application fo	r Pesticide - Sect	ion I	
Company/Product Number 524	1-445-1381	2. EPA Product Mana Mr. James	Tompkins	roposed Classification
4. Company/Product (Name) Silhouette	e⊛ Herbicide	PM# 25	X	None Restricted
5. Name and Address of Applicant (Inc.) Monsanto Company 700 14th Street, N.1 Washington, DC 2000	V., Suite 1100 D5	1 -	iew. In accordance with s similar or identical in c	
	S	ection - II		
Amendment - Explain below. Resubmission in response to All Notification - Explain below. Explanation: Use additional page(s)		Agancy lette -Me Too* A Other - Expli	pplication.	0/28/97
Submission of final application in Fres		·	ial)
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1. Contact Point (Complete items direct	ctly below for identification of in	dividual to be contacted, i	f necessary, to process this	a application.
Dr. Russell P. Schn		Agricultural Reg Oirector		ne No. (Include Area Code) 783-2460
I county that the statements i had a statements in a leak nowing both under applicable law.	Certification ve made on this form and all atte y false or misleading statement	schmants thereto ere true may be punishable by fine	, accurate and complete. For imprisonment or	8. Date Application Received (Stampad)
2. Signature Super Mike	3, Title	паger, Registrat	ions	
4. Typed Name Stephen J. Wr.	atten, Ph.D 5. Date	January 5, 1	998	378
PA Form 8570-1 (Rev. 8-94) Previous	editions are obsoleta,	Whit	a - EPA File Copy (original	Yellow - Applicant Cop

PAPERWORK REDUCTION ACT NOTICE and INSTRUCTIONS

PAPERWORK REDUCTION ACT NOTICE: Public reporting burden for this collection of information is estimated to everage 0.85 hour per response, including time for reviewing instructions, searching existing date sources, gathering and maintaining the date needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Chief, Information Policy Branch, (2136), U.S. Environmental Protection Agency, 401 M Street, SW, Weshington, DC 20460.

INSTRUCTIONS: This form is to be used for all applications for new registration, and use reregistration, amendment, resubmission, to applications for notifications, final printed labeling, reregistration, etc. In order to process an application for a new registration submitted on this form, the following material must accompany the application:

- 1. Certification with Respect to Citation of Data (EPA Form 8570-29). [If not exampted by 40 CFR 152.81 (b) (4)];
- 2; Confidential Statement of Formula (EPA Form 8570-4);
- 3. Formulator's Exemption Statement (EPA Form 8570-27);
- 4. Five copies of draft lebeling;
- 5. Three copies of any data submitted;
- 6. Authorization letter where applicable;
- 7. Matrices where applicable.

Submission of Labeling - Labeling should first be submitted in the form of draft labels with all applications for new registration. Such draft labels may be in the form of typed label text on 8.5 x 11 inch paper for submission or a mockup of the proposed label. If prepared for mockup, it should be constructed in a way as to facilitate storage in an 8.5 x 11 inch file. Mockup labels significantly smaller than 8.5 x 11 inches should be mounted on 8.5 x 11 inch paper for submission.

Submission of Data - Data submitted in support of this application must be submitted in accordance with PR Notice 86-5.

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SPECIFIC INSTRUCTIONS: Please read the instructions listed below before completing this application. First determine the type of registration action, listed in Block A, for which you are submitting this application. For applications submitted in connection with New Registration actions, Sections I, III, and IV must be completed by the applicant. For applications submitted in connection with amended reregistration actions, resubmissions, notifications, reregistrations, etc., Sections I, II, and IV must be completed by the applicant.

Block A - Queck the appropriate action for which you are submitting this form.

SECTION | This section must be completed, as applicable, for all registration actions.

- 1. Compasy/Product Number Insert your Company Number, if one has been assigned by EPA. This number may have been assigned to you as a basic registrent, a distributor, or as an establishment. If your product is registered, insert the Product Number.
- 2. EPA Product Manager If known, fill in the name and PM number of the EPA Product Manager.
- 3. Proposed Classification Specify the proposed classification of this product.
- 4. *Product Name Enter the complete product name of this pesticide as it will appear on the label. The name must be specific to this product only.

 Duplication of names is not permitted among products of the same company. Do not include any brand name or company line designations.
- 5. Name and Address of Applicant The name of the firm or person and address shown in your application is the person or firm to whom the registration will be issued. If you are acting in behalf of another perty, you must submit authorization from that party to act for them in registration matters. An applicant not residing in the United States must have an authorized agent residing in the United States to act for them in all registration matters. The name and complete mailing address of such an agent must accompany this application.
- 6. Expedited Review FIFRA section 3 (c) 3 (B) provides for expedited review of applications for registration, or amendments to existing registrations that are similar or identical to other posticide products that are currently registered with the EPA. In order for your application to be eligible for expedited review, you must provide us with the EPA Registration Number and product name of the product you believe is similar to or identical to your product. The product must be similar or identical in both formulation and labeled uses.

SECTION II - This section must be completed for all applications submitted to amend the registration only of a currently registered product Amendment), for a resubmission in response to an Agency letter, for notifications to the Agency, for the submission of final printed labeling, for eregistration and for any other action that pertains to a specific EPA-registered product. This section is not to be used for a new application for egistration.

Subject of submission - Check the applicable block and provide the Agency letter date if appropriate. Provide a brief explanation of the purpose(s) for the submission, such as "the addition of a site, pest or crop (specify)"; "amend the Confidential Statement of Formula by..."; "reregistration submission"; "general label revision of use directions." - Attach a separate page if additional space is needed.

ECTION III (Packaging and Container Information) - This Section must be completed for all applications submitted in connection with new pistration by applicable amendments.

Type of Packaging - Check the appropriate block if your product will be packaged in the indicated packaging types.

indicate the size of the individual packets and number per retail container.

arigemi venil (1) A .

Type of Retail Container - Indicate type of container in which product will be marketed.

Location of Net Contents - Indicate the location of the net contents information for your product.

Size(s) of Policy Container - Specify the net contents of all retail containers for your preduct.

Location of Use Directions - Indicate the location of the use directions for your product.

Muner in which label is affixed to product - Indicated the method product label is attached to retail container;

CTION IV (Contact Point) - This Section must be completed for all applications for Registration actions, i.e., new products registration, phonission, "me-too," reregistration, etc.

. Self-explanatory.

Cha Use Only.

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SUPPLEMENTAL LABELING

READ AND FOLLOW THE ENTIRE LABEL FOR ROUNDUP® HERBICIDE AND THE "FOR AERIAL APPLICATION IN CALIFORNIA ONLY" SUPPLEMENTAL LABEL BEFORE PRO-CEEDING WITH THE USE DIRECTIONS CONTAINED IN THIS SUPPLEMENTAL LABELING.

"Label" as used in this supplemental labeling refers to the label booklet for Roundup herbicide, the "FOR AERIAL APPLICATION IN CALIFORNIA ONLY" supplemental label, and this supplement.

12/9/93 1/28/94



(EPA Reg. No. 524-445)

FOR AERIAL APPLICATION IN FRESNO COUNTY, CA ONLY FROM FEBRUARY 15 THROUGH MARCH 31 ONLY.

FOR AERIAL APPLICATION OUTSIDE THESE DATES, REFER TO THE "FOR AERIAL APPLICATION IN CALIFORNIA ONLY" STATEWIDE SUPPLEMENTAL LABEL.

> Keep out of reach of children. **WARNING! AVISO!**

In case of an emergency involving this product, Call Collect, day or night, (314) 694-4000.

Roundup* is a registered trademark of Monsanto Company.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in any manner inconsistent with its labeling,

This label must be in the possession of the user at the time of the herbicide application.

See the "GENERAL INFORMATION" and "MIXING, ADDITIVES AND APPLICATION INSTRUCTIONS sections of the label booklet for essential product information.

See the "CROPPING SYSTEMS" section of the label booklet for specific recommendations on the use of this product.

Applicable Area

This supplement only applies to the area contained inside the following boundaries within Fresho County, California only,

North: South: Fresho County line Fresho County line

East

State Highway 99 Fresho County line

GENERAL INFORMATION

Always read and follow the label directions and precautionary statements for all products used in the agrial application.

Observe the following directions to minimize offsite movement during aerial application of Roundup herbicide. Minimization of off-site movement is the responsibility of the prower, Pest Control Advisor, and aerial applicator.

Written Recommendations

A written recommendation MUST be submitted by or on behalf of the applicator to the Fresno County Agricultural Commissioner 24 hours prior to the application. This written recommendation MUST state the proximity of surrounding crops, and that conditions of each " vautacturer's applicable product label(s) and this label have been satisfied.

Aerial Applicator Training and Equipment Aerial application of Roundup herbicide is limited to pilots who have successfully completed a Fresno County Agricultural Commissioner and California Department of Pesticide Regulation approved training program for aerial application of herbicides. All aircraft must be inspected, critiqued in flight, and certified at a Fresno County Agricultural Commissioner approved fly-in. Test and calibrate spray equipment at intervals sufficient to insure that proper rates of herbicides and adjuvants are being applied during commercial use. Applicator must document such calibrations and testing. Demonstration of performance at Fresno County Agricultural Commissioner approved "fly-ins" constitutes such documentation, or other written records showing calculations

and measurements of Eight and spray parameters acceptable to the Fresho County Agricultural Commissioner.

Application at night - Do not apply this product by air earlier than 30 minutes prior to sunrise and/or later than 30 minutes after sunset without prior permission from the Fresno County Agricultural Commissioner.

To report known or suspected misuse of Roundup herbicide, call 1-800-ROUNDUP.

For additional information on the proper serial application of Roundup herbicide, call (915) 784-

Read the "LIMIT OF WARRANTY AND LIABILITY" in the label for Roundup herbicide before using this product. Those terms apply to this supplemental labeling and if those terms are not acceptable, return the product unopened at once.

MAP-3579-1/25/94

© MONSANTO COMPANY 199

MONSANTO COMPANY AGRICULTURAL PRODUCTS ST. LOUIS, MISSOURI 631F7

SUPPLEMENTAL LABELING

READ AND FOLLOW THE ENTIRE LABEL FOR SILHOUETTE® HERBICIDE AND THE "FOR AERIAL APPLICATION IN CALIFORNIA ONLY" SUPPLEMENTAL LABEL BEFORE PROCEEDING WITH THE USE DIRECTIONS CONTAINED IN THIS SUPPLEMENTAL LABELING.

"Label" as used in this supplemental labeling refers to the label booklet for Silhouette herbicide, the "FOR AERIAL APPLICATION IN CALIFORNIA ONLY" supplemental label, and this supplement.



EPA Reg. No. 524-445-1381

Silhouette is a registered trademark used under license.

FOR AERIAL APPLICATION IN FRESNO COUNTY, CA ONLY From February 15 through March 31 only.

For aerial application outside these dates, refer to the "FOR AERIAL APPLICATION IN CALIFORNIA ONLY" statewide supplemental label.

Keep out of reach of children.

WARNING! AVISO!

In case of an emergency involving this product, Call Collect, day or night, (314) 694-4000.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in any manner inconsistent with its labeling.

This label must be in the possession of the user at the time of the herbicide applica-

See the "GENERAL INFORMATION" and "MIXING, ADDITIVES AND APPLICATION INSTRUCTIONS" sections of the label booklet for essential product information. See the "CROPPING SYSTEMS" section of the label booklet for specific recommendations on the use of this product.

Applicable Area

This supplement only applies to the area contained inside the following boundaries within Fresno County, California only.

North: Fresno County line South: Fresno County line East: State Highway 99 West: Fresno County line

General Information

Always read and follow the label directions and precautionary statements for all products used in the aerial application.

Observe the following directions to minimize off-site movement during aerial application of Silhouette® herbicide. Minimization of off-site movement is the responsibility of the grower, Pest Control Advisor, and aerial applicator.

Written Recommendations

A written recommendation MUST be submitted by or on behalf of the applicator to the Fresno County Agricultural

Commissioner 24 hours prior to the application. This written recommendation MUST state the proximity of surrounding crops, and that conditions of each manufacturer's applicable product label(s) and this label have been satisfied.

Aerial Applicator Training and Equipment
Aerial application of Silhouette herbicide
is limited to pilots who have successfully
completed a Fresno County Agricultural
Commissioner and California Department
of Pesticide Regulation applicated training
program for aerial application of herbicides. All aircraft must be inspected, critiqued in flight, and certified at a Fresno
County Agricultural Commissioner
approved fly-in. Test and calibrate spray
equipment at intervals sufficient to insure
that proper rates of herbicides and adjust

vants are being applied during commercial use. Applicator must document such calibrations and testing. Demonstration of performance at Fresno County Agricultural Commissioner approved 'flyins' constitutes such documentation, or other written records showing calculations and measurements of flight and spray parameters acceptable to the Fresno County Agricultural Commissioner.

Application at night - Do not apply this product by air earlier than 30 minutes prior to sunrise and/or later than 30 minutes after sunset without prior permission from the Fresno County Agricultural Commissioner.

For additional information on the proper aerial application of Silhouette herbicide, call your nearest Cenex/Land O' Lakes Company representative.

Read the "LIMIT OF WARRANTY AND LIA-BILITY" in the label for Silhouette herbicide before using this product. Those terms apply to this supplemental labeling and if those terms are not acceptable, a return the product unopened at once.

© MONSANTO COMPANY 1997

Manufactured for: Cenex/Land O' Lakes Agronomy Company P.O. Box 64089 St. Paul, MN 55164 U.S.A.

10/29/97

21149V1-5

Monsanto

Monsanto Company Suite 1100
700 14th Street, N.W.
Washington, D.C. 20005

January 14, 1998

Hand Delivered

Office of Pesticide Programs
Document Processing Center (Final Printed Labeling)
U.S. Environmental Protection Agency
Room 266A, Crystal Mall #2
1921 Jefferson Davis Highway
Arlington, VA 22202

Attention:

Mr. James A. Tompkins (7505C)

Team Leader (25)

Subject:

Rattler Herbicide (EPA Reg. No. 524-445-5905)

Submission of Final Printed Supplemental Labels

Aerial Application in Fresno County

Dear Mr. Tompkins:

On 21-Oct-97, Monsanto submitted to EPA proposed supplemental labeling for the above product using the Notification process. A label for aerial application of Roundup Herbicide (524-445) has already been approved, and this action was merely intended to extend this use to the alternate brand name "Rattler Herbicide". Five (5) copies of the Final Printed Label are enclosed for your records. It is identified by the Print Plate Number 21150V1-6 and is dated 29-Dec-97.

In the course of finalizing this label, quality assurance review discovered that an incorrect template had been used to produce the proposed labeling submitted to EPA on 21-Oct-97, so that it contained the CAUTION signal word rather than the proper WARNING wording as required on EPA Reg. No. 524-445. This error has been corrected in the Final Printed Labeling. Monsanto emphasizes that the incorrect labeling was not printed or distributed, and the error was confined solely to the draft text submitted to the Agency.

Mr. James A. Tompkins 14-Jan-98 Page 2

A copy of the Roundup Herbicide supplemental label for Aerial Application in Fresno County is enclosed for your reference and comparison. It was approved by the Agency on 9-Dec-93 and was submitted as Final Printed Labeling on 28-Jan-94. The only text change for the Rattler Herbicide label involve changes related to the brand name, distributor name, company number, and their decision not to include a telephone contact number.

If you have any questions on this matter please feel free to contact me through Dr. Russell P. Schneider or directly at 314-694-1582.

Sincerely,

Stepken J. Wratten

Manager, Registrations

CC:

R. P. Schneider

D. Fee-White

D. Rasmusson

J. Smith, Helena

Please read instructions on r	everse before completing form.	<u> </u>	Form App	roved.	OM8 No. 2	070-0050	. Approval expires 05-31-9		
\$EPA	United States Environmental Protect Washiggton, DC 20	ion Agen				ntion ment	255268		
	Applicat	ion for Pe	sticide - Sec	tion	I	-			
1. Company/Product Number	524-445-5905] 2	EPA Product Mar Mr. James	-	kins	Ι'_	oposed Classification		
4. Company/Product (Name)	Rattler® Herbicide	F	°M# 2	5 .		(×	None Restricted		
5. Name and Address of App Monsanto Compan 700 14th Street Washington, DC	y , N.W., Suite 1100	į (•	is simi	ilar or iden	țical in co	FIFRA Section 3(c)(3) imposition and labeling		
Check if this	is a new address		Product Name				:		
		Section	on - II	•					
Amendment - Explain Resubmission in resp	onse to Agency letter dated	· ·	X Final prints Agency let "Me Too" Other - Exp	tter date Applica	ition.	36 10 ————	·		
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		Section	on - III				<u>. </u>		
1. Material This Product Will	Se Packaged in:								
Child Resistant Packaging Yes* No * Certification must be submitted	Unit Packaging Yes No If "Yes" No. per Unit Packaging wgt. container	If "Yes"	Na. per		2. Type o	Metal Plastic Glass Paper Other (5)	Specify)		
3. Location of Net Contents Label C	Information 4. Size(s) R	letail Contains	r	5. Lo	cation of La On Labo On Labo	si .	ons		
6. Manner in Which Label is	Affixed to Product Lithe Paper Stern	ograph er glued iciled	Othe	D1					
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1. Contact Point Complete	items directly below for identifical			, if nec	essery, to p	racese this	application.)		
Dr. Russell P.		Title Agr	ricultural R rector			Telephor	ne No. (Include Area Code) 783-2460		
l cortify that the state I acknowledge that an both under poplicable	Certific ments I have made on this form ar y knowingly false or misleading st law.	nd all attachm	ents thereto are tru be punishable by fi	le, accu ne or in	urate and co ruprisonmen	implete. T or	6. Date Application Received (Stamped)		
2. Signature	Made	3. Tide Mana	ger, Registr	atio	ns				
4. Typed Name Stephen	J. Wratten, Ph.D.	5. Date	January 14,	1998			385		

PAPERWORK REDUCTION ACT NOTICE and INSTRUCTIONS

PAPERWORK REDUCTION ACT NOTICE: Public reporting burden for this collection of information is estimated to average 0.85 hour per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Chief, Information Policy Branch, (2136), U.S. Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460.

INSTRUCTIONS: This form is to be used for all applications for new registration, and use reregistration, emendment, resubmission, to applications for notifications, final printed labeling, reregistration, etc. In order to process an application for a new registration submitted on this form, the following material must accompany the application:

- 1. Certification with Respect to Citation of Data (EPA Form 8570-29). [If not exempted by 40 CFR 152.81 (b) (4)];
- 2. Confidential Statement of Formula (EPA Form 8570-4);
- 3. Formulator's Exemption Statement (EPA Form 8570-27);
- Five copies of draft labeling;
- 5. Three copies of any data submitted;
- 5. Authorization letter where applicable;
- 7. Matrices where applicable.

Submission of Labeling - Labeling should first be submitted in the form of draft labels with all applications for new registration. Such draft labels may be in the form of typed label text on 8.5 x 11 inch paper for submission or a mockup of the proposed label. If prepared for mockup, it should be constructed in a way as to facilitate storage in an 8.5 x 11 inch file. Mockup labels significantly smaller than 8.5 x 11 inches should be mounted on 8.5 x 11 inch paper for submission.

Submission of Data - Data submitted in support of this application must be submitted in accordance with PR Notice 86-5.

SPECIFIC INSTRUCTIONS: Please read the instructions listed below before completing this application. First determine the type of registration action, listed in Block A, for which you are submitting this application. For applications submitted in connection with New Registration actions, Sections I, III, and IV must be completed by the applicant. For applications submitted in connection with amended reregistration actions, resubmissions, notifications, reregistrations, etc., Sections I, II, and IV must be completed by the applicant.

Block A - Check the appropriate action for which you are submitting this form.

SECTION I - This section must be completed, as applicable, for all registration actions.

- 1. Company/Product Number Insert your Company Number, if one has been assigned by EPA. This number may have been assigned to you as a basic registrant, a distributor, or as an establishment. If your product is registered, insert the Product Number.
- 2. «EPA Product Manager» If known, fill in the name and PM number of the EPA Product.Manager.
- Proposed Classification Specify the proposed classification of this preduct. A.
- 4 Product Name Enter the complete product name of this pesticide as it will oppear on the label. The name must be specific to this product only. Duplication of names is not permitted among products of the same company. Do not include any brand name or company line designations.
- 5. Name and Address of Applicant The name of the firm or person and eddress shown in your application is the person or firm to whom the set set registration will be issued. If you are acting in behelf of another party, you must submit authorization from that party to act for them in registration matters. An applicant not residing in the United States must have an authorized agent residing in the United States to act for them in all a registration matters. The name and complete mailing address of such an agent must accompany this application.
- 6. Expedited Review FIFRA section 3 (c)(3 (B) provides for expedited review of applications-for registration, or amendments to existing registrations, that are similar or identical to other pesticide products that are currently registered with the EPA. In order for your application to be eligible for a expedited review, you must provide us with the EPA Registration Number and product name of the product you believe is similar to or, identical to your product. The product must be similar or identical in both formulation and labeled uses.

SECTION II - This section must be completed for all applications submitted to emend the registration only of a currently registered product (Amendment), for a resubmission in response to an Agency letter, for notifications to the Agency, for the submission of final printed labelings for reregistration and for any other action that pertains to a specific EPA-registered product. This section is not to be used for a new application for registration.

1. Subject of submission. Check the applicable block and provide the Agency letter date if appropriate. Provide a brief explanation of the purpose(s) for the submission, such as "the addition of a site, past or crop (specify)"; "amend the Confidential Statement of Formula by..."; "reregistration submission"; "general label revision of use directions." Attach a separate page if additional space is needed.

SECTION III (Packaging and Container Information) - This Section must be completed for all applications submitted in connection with new registration or applicable amendments.

- 1. Type of Packaging Check the appropriate block if your product will be packaged in the indicated packaging types.

 Indicate the size of the individual packets and number per reteil container.
- 2. Type of Setal Container Indicate type of container in which product will be marketed. 37:90
- 3. Location of Net Contents Indicate the location of the net contents information for your product, her about any interest of a supply those a
- 4. Size(s) of Retail Container Specify the net contents of all retail containers for your product periods to select vignes on a 1204 agreement of all retail containers for your product periods to select vignes of 1204 agreement of all retail containers for your product periods to select vignes of 1204 agreement of all retail containers for your product periods to select vignes of 1204 agreement of all retail containers for your product periods to select vignes of 1204 agreement of 1204 agree
- 5. Location of the Directions Indicate the location of the use directions for your product.
- 6. Manner in which label is affixed to product indicated the method product label is attached to retail container.

SECTION IV (Contact Point) - This Section must be completed for all applications for Registration actions, i.e., new products registration, resubmission, "me-too," reregistration, etc.

- 1-5. Self-explanatory.
- 8. EPA Use Only.

5. Dere (31143 m) 16, I

Stephen J. Wratten, Ph.D.

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SUPPLEMENTAL LABELING

READ AND FOLLOW THE ENTIRE LABEL FOR ROUNDUP® HERBICIDE AND THE "FOR AERIAL APPLICATION IN CALIFORNIA ONLY" SUPPLEMENTAL LABEL BEFORE PRO-CEEDING WITH THE USE DIRECTIONS CONTAINED IN THIS SUPPLEMENTAL LABELING.

"Label" as used in this supplemental labeling refers to the label booklet for Roundup herbicide, the "FOR AERIAL APPLICATION IN CALIFORNIA ONLY" supplemental label,

and this supplement. 12/9/93 1/28/94



(EPA Reg. No. 524-445)

FOR AERIAL APPLICATION IN FRESNO COUNTY, CA ONLY FROM FEBRUARY 15 THROUGH MARCH 31 ONLY.

FOR AERIAL APPLICATION OUTSIDE THESE DATES, REFER TO THE "FOR AERIAL APPLICATION IN CALIFORNIA ONLY" STATEWIDE SUPPLEMENTAL LABEL.

Keep out of reach of children. WARNING! AVISO!

in case of an emergency involving this product, Call Collect, day or night, (314) 694-4000.

Roundup* is a registered trademark of Monsanto Company

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in any manner inconsistent with its labeling.

This label must be in the possession of the user at the time of the herbicide application.

See the "GENERAL INFORMATION" and "MIXING, ADDITIVES AND APPLICATION INSTRUCTIONS sections of the label booklet for essential product information.

See the "CROPPING SYSTEMS" section of the tabel booldet for specific recommendations on the use of this product.

Applicable Area

This supplement only applies to the area contained inside the following boundaries within Fresno County, California only.

North:

Fresho County line

South: East

Fresho County line State Highway 99 Fresho County line

GENERAL INFORMATION

Always read and follow the tabel directions and precautionary statements for all products used in the aerial application.

Observe the following directions to minimize offsite movement during aerial application of Roundup herbicide. Minimization of off-site movement is the responsibility of the grower, Pest Control Advisor, and aerial applicator.

Written Recommendations

A written recommendation MUST be submitted by or on behalf of the applicator to the Fresno County Agricultural Commissioner 24 hours prior to the application. This written recommendation MUST state the preservity of surrounding crops, and that conditions of each - vautacturers applicable product label(s) and this label have been satisfied.

Aerial Applicator Training and Equipment Asial application of Roundup herbicide is limited to pilots who have successfully completed a Fresho County Agricultural Commissioner and California Department of Pesticide Regulation approved training program for serial application of herbicides. All aircraft must be inspected, critiqued in flight, and certified at a Fresno County Agricultural Commissioner approved fly-in. Test and calibrate spray equipment at intervals sufficient to insure that proper rates of herbicides and adjuvants are being applied during commercial use. Applicator must document such calibrations and testing. Demonstration of performance at Fresno County Agricultural Commissioner approved "By-ins" constitutes such documentabon, or other written records showing calculations

and measurements of flight and spray parameters acceptable to the Fresho County Apricultural Commissioner

Application at night - Do not apply this product by air earlier than 30 minutes prior to summa and/or later than 30 minutes after sunset without prior permission from the Frasno County Agricultural Commissioner.

To report known or suspected misuse of Roundup herbicide, call 1-800-ROUNDUP.

For additional information on the proper serial application of Roundup herbicide, call (916) 784-

Read the "LIMIT OF WARRANTY AND LIASILITY" in the label for Roundup herbicide before using this product. Those terms apply to this supplemental labeling and if those terms are not acceptable, return the product unopened at once.

MAP-3579-1/26/04

MONSANTO COMPANY 1994

MONSANTO COMPANY AGRICULTURAL PRODUCTS ST. LOUIS, MISSOURI 63167

SUPPI EMENTAL LABELING

READ AND FOLLOW THE ENTIRE LABEL FOR RATTLER® HERBICIDE AND THE "FOR AERIAL APPLICATION IN CALIFORNIA ONLY" SUPPLEMENTAL LABEL BEFORE PROCEEDING WITH THE USE DIRECTIONS CONTAINED IN THIS SUPPLEMENTAL LABELING.

"Label" as used in this supplemental labeling refers to the label booklet for Rattler herbicide, the "FOR AERIAL APPLICATION IN CALIFORNIA ONLY" supplemental label, and this supplement.



EPA Reg. No. 524-445-5905

Rattler is a registered trademark used under license.

FOR AERIAL APPLICATION IN FRESNO COUNTY, CA ONLY From February 15 through March 31 only.

For aerial application outside these dates, refer to the "FOR AERIAL APPLICATION IN CALIFORNIA ONLY" statewide supplemental label.

Keep out of reach of children.

WARNING! AVISO!

In case of an emergency involving this product, Call Collect, day or night, (314) 694-4000.

DIRECTIONS FOR USE

It is a violation of Federal law to use this production any manner inconsistent with : its labeling.

 This label must be in the possession of the user at the time of the herbicide application."

See the "GENERAL INFORMATION" and *MIXING, ADDITIVES AND APPLICATION INSTRUCTIONS' sections of the label booklet for essential product information.

See the 'CROPPING SYSTEMS' section of the label booklet for specific recommendations on the use of this product.

Applicable Area

This supplement only applies to the area contained inside the following boundaries within Fresno County, California only.

North: Fresno County line -South: Fresho County line State Highway, 99, East: Fresno County line West:

General Information

Always read and follow the label directions and precautionary statements for all products used in the aerial application.

Observe the following directions to minimize off-site movement during aerial application of Rattler® herbicide. Minimization of off-site movement is the responsibility of the grower, Pest Control Advisor, and aerial applicator.

Written Recommendations

A written recommendation MUST be submitted by or on behalf of the applicator to Agricultural the Fresno County

Commissioner 24 hours prior to the application. This written recommendation MUST state the proximity of surrounding crops, and that conditions of each manufacturer's applicable product label(s) and this label have been satisfied.

Aerial Applicator Training and Equipment

Aerial application of Rattler herbicide is limited to pilots who have successfully completed a Fresno County Agricultural Commissioner and California Department of Pesticide Regulation approved training program for aerial application of herbicides. All aircraft must be inspected, critiqued in flight, and certified at a Fresno County Agricultural Commissioner approved fly-in. Test and calibrate spray equipment at intervals sufficient to insure

that proper rates of herbicides and adjuvants are being applied during commercial use. Applicator must document such calibrations and testing. Demonstration of performance at Fresno County Agricultural Commissioner approved 'flyins' constitutes such documentation, or other written records showing calculations and measurements of flight and spray parameters acceptable to the Fresno County Agricultural Commissioner.

Application at night - Do not apply this product by air earlier than 30 minutes prior to sunrise and/or later than 30 minutes after sunset without prior permission from the Fresno County Agricultural Commissioner.

For additional information on the proper aerial application of Rattler herbicide, call your nearest Helena Chemical Company representative.

Read the "LIMIT OF WARRANTY AND LIABILITY" in the label for Rattler herbicide before using this product. Those terms apply to this supplemental labeling and if those terms are not acceptable, return the product unopened at once.

© 1997 Manufactured for: Helena Chemical Company Memphis, TN 38119 U.S.A.

12/29/97

21150V1-6

Monsanto

Monsanto Company Suite 1100 700 14th Street, N.W. Washington, D.C. 20005

January 14, 1998

Hand Delivered

Office of Pesticide Programs
Document Processing Center (Final Printed Labeling)
U.S. Environmental Protection Agency
Room 266A, Crystal Mall #2
1921 Jefferson Davis Highway
Arlington, VA 22202

Attention:

Mr. James A. Tompkins (7505C)

Team Leader (25)

Subject:

Rattler Herbicide (EPA Reg. No. 524-445-5905)

Submission of Final Printed Supplemental Labels

Aerial Application in California

Dear Mr. Tompkins:

On 21-Oct-97, Monsanto submitted to EPA proposed supplemental labeling for the above product using the Notification process. A label for aerial application of Roundup Herbicide (524-445) has already been approved, and this action was merely intended to extend this use to the alternate brand name "Rattler Herbicide". Five (5) copies of the Final Printed Label are enclosed for your records. It is identified by the Print Plate Number 21150V1-5 and is dated 22-Dec-97.

In the course of finalizing this label, quality assurance review discovered that an incorrect template had been used to produce the proposed labeling submitted to EPA on 21-Oct-97, so that it contained the CAUTION signal word rather than the proper WARNING wording as required on EPA Reg. No. 524-445. This error has been corrected in the Final Printed Labeling. Monsanto emphasizes that the incorrect labeling was not printed or distributed, and the error was confined solely to the draft text submitted to the Agency.

Mr. James A. Tompkins 14-Jan-98 Page 2

A copy of the Roundup Herbicide supplemental label for Aerial Application California is enclosed for your reference and comparison. It was originally approved by the Agency on 18-Mar-91 and the present version was submitted as Final Printed Labeling on 18-Mar-94. The only text change for the Rattler Herbicide label involve changes related to the brand name, distributor name, company number, and their decision not to include a telephone contact number.

If you have any questions on this matter please feel free to contact me through Dr. Russell P. Schneider or directly at 314-694-1582.

Sincerely,

Stephen J. Wratten

Manager, Registrations

cc:

R. P. Schneider

D. Fee-White

D. Rasmusson

J. Smith, Helena

	U	Inited States			ĺ		Registra	tion	OPP k	lentifier	Number
Environmental Protection Agency Washington, DC 20460							Amendr	255260			
						X	Other		2002GJ		
		Application	n for F	esticio	le - Sect	ion	<u> </u>				
1. Company/Product Numbe	" 524-445-5 <mark>90</mark> 5			2. EPA P	roduct Mana James T	ger Omb	kins	3. Pro	posed (lassific	ation
4. Company/Product (Name)	Rattler® Her	bicide		PM#	25		·		None		Restricted
Washington, D	any et, N.W., Suit			6. Expedited Review. In accordance with FIFRA Section 3(c)(3) (b)(i), my product is similar or identical in composition and labeling to: EPA Reg. No.							
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1. Material This Product Wil	I Re Packaged In:	•	Sect	ion - II	<u>.</u>			•			
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4. Typed Name Stepher	ı J. Wratten, I	Ph.D.	5. Date	Janua	ry 14, 1	998				apleneto Jac Griy	

Form Approved, OMB No. 2070-0060. Approval expires 05-31-98

White - EPA File Copy (original) Yellow - Applicant Copy

Please read instructions on reverse before completing form.

EPA Form 8570-1 (Rev. 8-94) Previous editions are obsolete.

PAPERWORK REDUCTION ACT NOTICE and INSTRUCTIONS

PAPERWORK REDUCTION ACT NOTICE: Public reporting burden for this collection of information is estimated to average 0.85 hour per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Chief, Information Policy Branch, (2136), U.S. Environmental Protection Agency, 401 M Street, SW, Washington, DC 20450.

INSTRUCTIONS: This form is to be used for all applications for new registration, and use reregistration, amendment, resubmission, to applications for notifications, final printed labeling, reregistration, etc. In order to process an application for a new registration submitted on this form, the following material must accompany the application:

- 1 Certification with Respect to Citation of Data (EPA Form 8570-29). [If not exempted by 40 CFR 152.81 (b) (4)];
- 2. Confidential Statement of Formula (EPA Form 8570-4);
- 3. Formulator's Exemption Statement (EPA Form 8S70-27);
- 4. Five copies of draft labeling;
- 5. Three copies of any data submitted;
- 6. Authorization letter where applicable:
- 7. Matrices where applicable.

Submission of Labeling - Labeling should first be submitted in the form of draft labels with all applications for new registration. Such draft labels may be in the form of typed label text on 8.5 x 11 inch paper for submission or a mockup of the proposed label. If prepared for mockup, it should be constructed in a way as to facilitate storage in an 8.5 x 11 inch file. Mockup labels significantly smaller than 8.5 x 11 inches should be mounted on 8.5 x 11 inch paper for submission.

Submission of Data - Date submitted in support of this application must be submitted in accordance with PR Notice 86-5.

SPECIFIC INSTRUCTIONS: Please read the instructions listed below before completing this application. First determine the type of registration. action, listed in Block A, for which you are submitting this application. For applications submitted in connection with New Ragistration actions, Sections I, III, and IV must be completed by the applicant. For applications submitted in connection with amended reregistration actions, resubmissions, notifications, reregistrations, etc., Sections I, II, and IV must be completed by the applicant. Block A Check the appropriate action for which you are submitting this form.

SECTION I - This section must be completed, as applicable, for all registration actions.

- 1. Company/Product Number Insert your Company Number, if one has been assigned by EPA. This number may have been assigned to you as a basic registrent, a distributor, or as an establishment. If your product is registered, insert the Product Number.
- 2. EPA Product Manager If known, fill in the name and PM number of the EPA Product Manager.
- 3. Proposed Classification Specify the proposed classification of this product,
- 4. Product Name Enter the complete product name of this pesticide as it will appear on the label. The name must be specific to this product only. Duplication of names is not permitted among products of the same company. Do not include any brand name or company line designations:
- 5. Name and Address of Applicant.- The name of the firm or person and address shown in your application is the person or firm to whom the registration will be issued. If you are ecting in behalf of another party, you must submit authorization from that party to act for them in registration matters. An applicant not residing in the United States must have an authorized agent residing in the United States to act for them in all registration matters. The name and complete mailing eddress of such an agent must accompany this application.
- 6. Expedited Review FIFRA section 3 (c).3 (B) provides for expedited review of applications for registration, or amendments to existing registrations,... that are similar or identical to other pesticide products that are currently registered with the EPA. In order for your application to be eligible for 🦡 🥃 expedited review, you must provide us with the EPA Registration Number and product name of the product you believe is similar to or identical to your product. The product must be similar of identical in both formulation and labaled uses.

andicular Capal Capulation SECTION II - This section must be completed for all applications submitted to amend the registration only of a currently registered product (Amendment), for a resubmission in response to an Agency letter, for notifications to the Agency, for the submission of final printed labeling, for reregistration and for any other action that pertains to a specific EPA-registered product. This section is not to be used for a new application for savigneras registration.

1. Subject of submission - Chack the applicable block and provide the Agency letter date if appropriate. Provide a brief explanation of the purpose(s) for the submission, such as "the eddition of a site, pest or crop (specify)"; amend the Confidential Statement of Formula by ... ; "reregistration for the submission, such as "the eduluon or a site, pest or proposed by a submission,"; "general label revision of usa directions." Attach a separate page if additional space is needed.

SECTION III (Packaging and Container Information)—This Section must be completed for all applications submitted in connection with new registration of applicable amendments. ACLIS super length of the contract of t

- 1. Type of Packaging Check the appropriate block if your product will be packaged in the indicated packaging types. Indicate the size of the individual packets and number per reteil container.
- 2. Type of Retail Container Indicate type of container in which product will be marketed. 189-13
- 3. Location of Net Contents Indicate the location of the net contents information for your product, the above the location of the net contents information for your product, the above the location of the net contents information for your product, the above the location of the net contents information for your product, the above the location of the net contents information for your product.
- 4. Size(s) of Retail Container Specify the net contents of all retail containers for your products soldiers to security the net contents of all retail containers.
- S. Location of Use Directions Indicate the location of the use directions for your product.
- 6. Manner in which label is affixed to product cludicated the method product label is attached to retail container.

SECTION IV (Contact Point) - This Section must be completed for all applications for Registration actions / i.e., new products registration. resubmission, "me-too," reregistration, etc.

- 1-5. Self-explanatory.
- 6. EPA Use Only,

January 14, 1998

Stephen J. Wratten, Ph.D.

SUPPLEMENTAL LABELING

READ AND FOLLOW THE ENTIRE LABEL BOOKLET FOR ROUNDUP® HERBICIDE BEFORE PROCEEDING WITH THE USE DIRECTIONS CONTAINED IN THIS SUPPLEMENTAL LABELING.

"Label" as used in this supplemental labeling refers to the label booklet for ROUNDUP herbicide and this

Submitted 18. mar. 97 18. mar. 91
Approvad originally 18. mar. 91 supplement oundup

EPA Reg. No. 524-445

FOR AERIAL APPLICATION IN CALIFORNIA ONLY.

Keep out of reach of children.

WARNING! AVISO!

In case of an emergency involving this product, Call Collect, day or night, (314) 694-4000.

ROUNDUP® is a recisioned trademark of Monsanto Company.

DIRECTIONS FOR USE

it is a violation of Federal law to use this product in any manner inconsistent with its jubeling.

This label must be in the possession of the user at the time of the harbicide application.

See "GENERAL INFORMATION" and "MIXING. ADDITIVES and APPLICATION INSTRUC-TIONS" sections of the Roundup label booklet for essertial product performance information.

See the "CROPPING SYSTEMS" of the label buoldet for specific recommendations on the use of this product.

EXTREME CARE MUST BE EXERCISED TO AVOID CONTACT OF SPRAY WITH FOLIAGE, GREEN STEMS, OR FRUIT OF DESIRABLE CROPS, PLANTS, TREES, OR OTHER DESIR-ABLE VEGETATION SINCE SEVERE DAMAGE OR DESTRUCTION MAY RESULT.

Aerial applications of this product are allowed in the following situations:

- 1. In follow, and reduced billage systems prior to the emergence or transplanting of labeled CFDCS
- 2. In cotton, prior to herwest. Refer to the ROUNDUP® booklet for specific pre harvest application instructions.

Do not plant subsequent crops other than those listed in the label booket for this product for 30 . days following application.

When applied as recommended, under the conditions described, this product controls enrusal and perennial weeds issied in the label h-

DO NOT EXCEED A MAXIMUM RATE OF 1 QUART PER ACRE OF THIS PRODUCT WHEN MAKING APPLICATIONS BY AIR.

AERIAL EQUIPMENT

Use the recommended rates of this product in 3 to 15 gallions of water per sore.

Do not apply to water, to areus where surface victor is present or to intertidal aroun below the en high water merk. Do not contaminate ater when disposing of eculprises washwaters.

AVOID DRIFT - DO NOT APPLY WHEN WINDS ARE GUSTY OR UNDER ANY OTHER COND-TION WHICH WILL ALLOW DRIFT. DRIFT MAY CAUSE DAMAGE TO ANY VEGETATION CONTACTED TO WHICH TREATMENT IS NOT INTENDED. TO PREVENT INJURY TO ADJACENT DESIRABLE VEGETATION, AP-PROPRIATE BUFFER ZONES MUST BE MAINTAINED.

Use the following guidelines when serial applications are made near crops or desirable perennial vegetation after bud break end before total les drop, and/or near other desirable vagetation or annual crops.

- 1. Do not apply within 100 feet of all desirable vecutation or crop(s).
- 2. If wind up to 5 miles per hour is blowing toward desirable vagatation or crop(s), do not apply within 500 hundred feet of the desirable vegetation or crop(s),
- 3. Winds blowing from 5 to 10 miles per hour toward desirable vegetation may require buffer zones in excess of 500 feet.

4. Do not apply when winds are in excess of 10 miles per hour or when inversion conditions

Course sprays are less likely to drift; therefore, do not use nazziee or nazzie configurations which disputes spray as line spray droplets. Do not angle notices forward into the girstream and do not increase nazzle pressure.

Drift control additives may be used. When a drift control additive is used, read and corwfully observe the continuous statements and all other information and all other information appearing on the additive label.

Ensure uniform application - to avoid streaked, uneven or overlapped application, use appropriate marking devices.

Thoroughly wash sircraft, especially landing pear, effer each day of sorrying to remove residues of this product accumulated during spraying or form splits, PROLONGED EXPO-SURE OF THIS PRODUCT TO UNCOATED STEEL SURFACES MAY RESULT IN CORRO-SION AND POSSIBLE FAILURE OF THE PART, LANDING GEAR IS MOST SUSCEPTI-BLE. The maintenance of an organic coating (paint) which meets serospope specification Mt.-C-38413 may prevent corresion.

Reed the "LMIT of WARRANTY AND LIABIL-" in the label booklet for Roundup herbicide before using this product. Those terms apply to this expolemental labeling and if those terms are not acceptable, return the product unopened at anat.

2100151-2-3/17/94

@MONSANTO COMPANY 1994

MONSANTO COMPANY AGRICULTURAL PRODUCTS ST. LOUIS, MO 63167

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SUPPLEMENTAL LABELING

READ AND FOLLOW THE ENTIRE LABEL BOOKLET FOR RATTLER®
HERBICIDE BEFORE PROCEEDING WITH THE USE DIRECTIONS
CONTAINED IN THIS SUPPLEMENTAL LABELING.

"Label" as used in this supplemental labeling refers to the label booklet for Rattler herbicide and this supplement.



🕯 EPA Reg. No. 524-445-5905

®Rattler is a registered trademark used under license.

FOR AERIAL APPLICATION IN CALIFORNIA ONLY

Keep out of reach of children.

WARNING! AVISO!

. In case of an emergency involving this product, Call Collect, day or night, 314-694-4000.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in any manner inconsistent with its labeling.

This label must be in the possession of the user at the time of the herbicide application.

See "GENERAL INFORMATION" and "MIXING, ADDITIVES and APPLICA-TION INSTRUCTIONS' sections of the Rattler label booklet for essential product performance information.

See the "CROPPING SYSTEMS" section of the label booklet for specific recommendations on the use of this product:

EXTREME CARE MUST BE EXER-CISED TO AVOID CONTACT OF SPRAY WITH FOLIAGE, GREEN STEMS, OR FRUIT DF DESIRABLE CROPS, PLANTS, TREES DR OTHER DESIR-ABLE VEGETATION, SINCE SEVERE DAMAGE OR DESTRUCTION MAY RESULT. Aerial applications of this product are allowed in the following situations.

- In fallow and reduced tillage systems prior to the emergence or transplanting of labeled crops.
- In cotton, prior to harvest. Refer to the Rattler herbicide booklet for specific preharvest application instructions.

Do not plant subsequent crops other than those listed in the label booklet for this product 30 days following application.

When applied as recommended under the conditions described, this product controls annual and perennial weeds listed in the label booklet.

DO NOT EXCEED A MAXIMUM RATE OF 1 QUART PER ACRE OF THIS PRODUCT WHEN MAKING APPLICATIONS BY AIR.

Aerial Equipment

Use the recommended rates of this product in 3 to 15 gallons of water per

acre.

Do not apply to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters.

AVOID DRIFT—DO NOT APPLY WHEN WINDS ARE GUSTY OR UNDER ANY OTHER CONDITION WHICH WILL ALLOW DRIFT. DRIFT MAY CAUSE DAMAGE TO ANY VEGETATION CONTACTED TO WHICH TREATMENT IS NOT INTENDED. TO PREVENT INJURY TO ADJACENT DESIRABLE VEGETATION, APPROPRIATE BUFFER ZONES MUST BE MAINTAINED.

Use the following guidelines when aerial applications are made near crops or desirable perennial vegetation after bud break and before total leaf drop, and/or near other desirable vegetation or annual crops.

- Do not apply within 100 feet of all desirable vegetation or crop(s).
- 2. If wind up to 5 miles per hour is

blowing toward desirable vegetation or crop(s), do not apply within 500 feet of the desirable vegetation or crop(s).

- Winds blowing from 5 to 10 miles per hour toward desirable vegetation may require buffer zones in excess of 500 feet.
- Do not apply when winds are in excess of 10 miles per hour or when inversion conditions exist.

Coarse sprays are less likely to drift; therefore, do not use nozzles or nozzle configurations which dispense spray as fine spray droplets. Do not angle nozzles forward into the airstream and do not increase nozzle pressure.

Drift control additives may be used. When a drift control additive is used, read and carefully observe the cautionary statements and all other information appearing on the additive label. Ensure uniform application—To avoid streaked, uneven or overlapped application, use appropriate marking devices.

Thoroughly wash aircraft, especially landing gear, after each day of spraying to remove residues of this product accumulated during spraying or from spills. PROLONGED EXPOSURE OF THIS PRODUCT TO UNCOATED STEEL SURFACES MAY RESULT IN CDRROSION AND POSSIBLE FAILURE OF THE PART. LANDING GEAR IS MOST SUSCEPTIBLE. The maintenance of an organic coating (paint) which meets aerospace specification MIL-C-38413 may prevent corrosion.

Read the "LIMIT OF WARRANTY AND LIABILITY" in the label booklet for Rattler herbicide before using this product. Those terms apply to this supplemental labeling and if those terms are not acceptable, return the product unopened at once.

©1997

Manufactured for: Helena Chemical Company Memphis, TN 38119 U.S.A.

21150V1-5

12/22/97

Monsanto

Monsanto Company Suite 1100 700 14th Street, N.W. Washington, D.C. 20005

January 9, 1998

Hand Delivered

Office of Pesticide Programs
Document Processing Center (Final Printed Labeling)
U.S. Environmental Protection Agency
Room 266A, Crystal Mall #2
1921 Jefferson Davis Highway
Arlington, VA 22202

Attention:

Mr. James A. Tompkins (7505C)

Team Leader (25)

Subject:

Rattler® Herbicide (EPA Reg. No. 524-445-5905)

Final Printed Label Booklets

Responsive to Notification dated 21-Oct-97

Dear Mr. Tompkins:

On 21-Oct-97, Monsanto notified the Agency that Helena Chemical Co. will provide growers with a new distributor product under EPA Reg. No. 524-445 using brand name "Rattler Herbicide". Although Monsanto realizes that the Agency does not require submission of labeling for distributor products, herein we provide three (3) copies of the final printed booklet labeling should you desire copies in your files.

If you have any questions on this matter please feel free to contact me through Dr. Russell P. Schneider or directly at 314-694-1582.

Sincerely,

Stephen J. Wratten

Manager, Registrations

cc: R. P. Schneider

Judy Smith, Helena (letter only)

our > res instructions on reverse bu	sfore completing form.		Form Approved	f. OMB No. 207	0-0060.	Approval expires 05-31-98
O EDA	United States			Registrat		OPP Identifier Number
SEPA Enviro	Onmental Protect Washington, DC 2		x	Amendm Other	eņt	255256
	Applicat	ion for Pestic	ide - Sectior	۱ I		
1. Company/Product Number 524	-445-5905	2. EPA MY	Product Manager , James Tom	pkins		posed Classification
4. Company/Product (Name) Rattler® Herb	icide	PM#	25			None Restricted
5. Name and Address of Applicant <i>(In</i> Monsanto Company 700 14th Street, Washington, DC 2	N.W., Suite 1100	(b)(i), i to:		milar or identic	al in cor	FIFRA Section 3(c)(3) mposition and labeling
Check if this is a new	address	Prodi	uct Name			
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Amendment - Explain below.		×	Finel printed lab Agency letter de	ated _	to	
Resubmission in response to A Notification - Explain below.	gency letter dated		*Me Too* Appli Other - Explain I		-	•
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Dr. Russell P. Sc		7	ltural Regu		elephone	No. (Include Area Code) 783-2460
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PAPERWORK REDUCTION ACT NOTICE and INSTRUCTIONS

<u>PAPERWORK REDUCTION ACT NOTICE:</u> Public reporting burden for this collection of information is estimated to sverage 0.85 hour per response, including time for reviewing instructions, searching existing data sources, gethering and mainteining the data needed, and completing and reviewing the collection of information. Sand comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Chief, Information Policy Branch, (2136), U.S. Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460.

INSTRUCTIONS: This form is to be used for all applications for new registration, and use reregistration, amendment, resubmission, to applications for notifications, final printed labeling, reregistration, etc. In order to process an application for a new registration submitted on this form, the following material must accompany the application:

- 1. Certification with Respect to Citation of Data (EPA Form 8570-29). (If not exempted by 40 CFR 152.81 (b) (4));
- 2. Confidential Statement of Formula (EPA Form 8570-4);
- 3. Formulator's Examption Statement (EPA Form 8570-27);
- Five copies of draft labeling;
- 5. Three copies of any data submitted:
- 6. Authorization letter where applicable;
- 7. Matrices where applicable.

Submission of Labeling - Labeling should first be submitted in the form of draft labels with all applications for new registration. Such draft labels may be in the form of typed label text on 8.5 x 11 inch paper for submission or a mockup of the proposed label. If prepared for mockup, it should be constructed in a way as to facilitate storage in an 8.5 x 11 inch file. Mockup labels significantly smaller than 8.5 x 11 inches should be mounted on 8. x 11 inch.paper for submission.

Submission of Data . Data submitted in support of this application must be submitted in accordance with PR Notice 86-5.

SPECIFIC INSTRUCTIONS: Please read the instructions listed below before completing this application. First determine the type of registration action, listed in Block A, for which you are submitting this application. For applications submitted in connection with New Registration actions, Sections I, III, and IV must be completed by the applicant. For applications submitted in connection with amended reregistration actions, resubmissions, notifications, reregistrations, etc., Sections I, II, and IV must be completed by the applicant.

Block A - Check the appropriate action for which you are submitting this form.

SECTION 1 - This section must be completed, as applicable, for all registration ections.

- 1. Company/Product Number Insert your Company Number, if one has been assigned by EPA. This number may have been assigned to you as a basic registrant, a distributor, or as an establishment. If your product is registered, insert the Product Number.
- 2. EPA Product Manager If known, fill in the name and PM number of the EPA Product Manager.
- 3. Proposed Classification Specify the proposed classification of this product.
- 4. Product Name Enter the complete product name of this pesticide as it will appear on the label. The name must be specific to this product only."

 Duplication of names is not permitted among products of the same company. Do not include any brand name or company line designations:
- 5. Name and Address of Applicant The name of the firm or person and address shown in your application is the person or firm to whom the consistency registration will be issued. If you are acting in behalf of another party, you must submit authorization from that party to act for them in registration matters. An applicant not residing in the United States must have an authorized agent residing in the United States to act for them in all registration matters. The name and complete mailing address of such an agent must accompany this application.
- 5. Expedited Review FiFRA section 3 (c) 3 (B) provides for expedited review of applications for registration, or amendments to existing registrations, that are similar or identical to other posticide products that are currently registered with the EPA. In order for your application to be eligible for expedited review, you must provide us with the EPA Registration Number and product name of the product you believe is similar to or identical to your product. The product must be similar or identical in both formulation and labeled uses.

SECTION II - This section must be completed for all applications submitted to amend the registration only of a currently registered product [Amendment], 16r a resubmission in response to an Agency letter, for notifications to the Agency, for the submission of final printed labeling, for reregistration and for any other action that pertains to a specific EPA-registered product. This section is not to be used for a new application for registration.

1. Subject of submission - Check the applicable block and provide the Agency letter date if appropriate. Provide a brief explanation of the purpose(s) for the submission, such as "the addition of a site, past or crop (specify)"; "amend the Confidential Statement of Formula by..."; "reregistration submission"; "general label revision of use directions." Attach a separate page if additional space is needed.

SECTION: 111 (Packaging and Container Information) - This Section must be completed for all applications submitted in connection with new registration or applicable amendments.

- 1. Type of Packaging Check the appropriate block if your product will be packaged in the indicated packaging types.

 Indicate the size of the individual packats and number per retail container.
- 2. Type of Retail Centainer Indicate type of container in which product will be marketed.
- 3. Location of Net Contents Indicate the location of the net contents information for your product.
- 4. Cizelo of Retail Container Specify the net contents of all retail containers for your product.
- 5. Location of Use Directions Indicate the location of the use directions for your product.
- 5. Hanner in which label is affixed to product Indicated the method product label is attached to retail container.

SECTION IV (Contact Phint) - This Section must be completed for all applications for Registration actions, i.e., new products registration, resubmission, "me-t&", reregistration, etc.

- 1-5. Self-explanatory.
- 6. EPA Use Only.

Yellow - Applicant Copt

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	Α	pplication	for Pesticion	de - Sect	ion l			
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1. Contact Point (Com	plete items directly below for	identification o	f individual to be	contacted,	if nece	ssary, to proce	ss this	epplication.)
Name Dr. Russe	ell P. Schneider		l Agricult ∴Director		ulat			No. (Include Area Code)
•	statements I have made on th at any knowingly false or mis able law.		attachments the					6) Date Application Received
2. Signature	nd//leater	3. 1	⊓u∙ Manager,	Registra	tion	S .		

5. Date

4. Typed Name

Stephen J. Wratten, Ph.O.

October 21, 1997

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- 2. EPA Product Manager If known, fill in the name and PM number of the EPA Product Manager.
- Proposed Classification Specify the proposed classification of this product...
- 4;" Product Name Enter the complete product name of this pesticide as it will appear on the label. The name must be specific to this product only.

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- 5. Name and Address of Applicant. The name of the firm or person and eddress shown in your application is the person or firm to whom the registration will be issued. If you are acting in behalf of another party, you must submit authorization from that party to act for them in registration matters. An applicant not residing in the United States must have an authorized agent residing in the United States to act for them in all registration matters. The name and complete mailing eddress of such an agent must accompany this application.
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- 1-5. Self-explanatory.
- 6. EPA Use Only.

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Monsanto

Monsanto Company Suite 1100 700 14th Street, N.W. Washington, D.C. 20005

October 21, 1997

Hand Delivered

Office of Pesticide Programs
Document Processing Center (NOTIF)
U.S. Environmental Protection Agency
Room 266A, Crystal Mall #2
1921 Jefferson Davis Highway
Arlington, VA 22202

Attention:

Mr. James A. Tompkins (7505C)

Team Leader (25)

Subject:

New Brand Name: Rattler® Herbicide

Distributor Supplemental under EPA Reg. No. 524-445

Dear Mr. Tompkins:

Monsanto and Helena Chemical Company have reached an agreement so that Monsanto requests that the Agency grant a Distributor Supplemental registration allowing Helena to distribute "Rattler Herbicide". This constitutes notification to EPA of the use of a new brand name "Rattler Herbicide" for EPA Registration Number 524-445-5905. We enclose five (5) copies of draft product labeling for this new product. Also enclosed are a completed forms 8570-5 and a form 8570-1 for your records.

The Rattler Herbicide labeling is comprised completely of text that has have been already approved by the Agency on other 524-445 brands; this label is merely a rearrangement of the desired text into a single label booklet. This label is identical to the text submitted for Honcho Herbicide in Monsanto's letter dated 7-Oct-97, except for the changes to accommodate the brand name and distributor change. I enclose a copy of that letter for your reference regarding the sources of all elements of the label text.

If you have any questions on this matter please feel free to contact me through Dr. Russell P. Schneider or directly at 314-694-1582.

Sincerely,

Stephen J. Wratten

Manager, Registrations

cc:

R. P. Schneider

D. Fee-White

D. Rasmusson

F. Hedgecock

402

TELEPHONE: (202) 783-2460 FACSIMILE: (202) 783-2468



Complete Directions for Use

EPA Reg. No. 524-445-5905

AVOID CONTACT WITH FOLIAGE, GREEN STEMS, EXPOSED NON-WOODY ROOTS OR FRUIT OF CROPS, DESIRABLE PLANTS AND TREES, SINCE SEVERE INJURY OR DESTRUCTION MAY RESULT.

1997-1

21150V1-1/53



Complete Directions for Use

EPA Reg. No. 524-445-5905

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1997-1

21150V1-1/53

Read the entire label before using this product.

Use only according to tabef instructions.

Read "LIMIT OF WARRANTY AND LIABILITY" before buying or using, if terms are not acceptable, return at once unopened.

REFORMULATION IS PROHIBITED. SEE INDIVIDUAL CONTAINER LABEL FOR REPACKAGING LIMITATIONS.

LIMIT OF WARRANTY AND LIABILITY

This Company warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes set forth in the Complete Directions for Use label booklet ("Directions") when used in accordance with those Directions under the conditions described therein. NO OTHER EXPRESS WARRANTY OR IMPLIED WARRANTY OF FITNESS FOR PARTICULAR PURPOSE OR MERCHANTABILITY IS MADE. This warranty is also subject to the conditions and limitations stated herein.

Buyer and all users shall promptly notify this Company of any claims whether based in contract, negligence, strict liability, other tort or otherwise.

Buyer and all users are responsible for all loss or damage from use or handling which results from conditions beyond the control of this Company, including, but not limited to, incompatibility with products other than those set forth in the Directions, application to or contact with desirable vegetation, unusual weather, weather conditions which are outside the range considered normal at the application site and for the time period when the product is applied, as well as weather conditions which are outside the application ranges set forth in the Directions, application in any manner not explicitly set forth in the Directions, moisture conditions outside the moisture range specified in the Directions, or the presence of products other than those set forth in the Directions in or on the soil, crop or treated vegetation.

THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE LIMIT OF THE LIABILITY OF THIS COMPANY OR ANY OTHER SELLER FOR ANY AND ALL LOSSES, INJURIES OR DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT (INCLUDING CLAIMS BASED IN CONTRACT, NEGLIGENCE, STRICT LIABILITY, OTHER TORT OR OTHERWISC) SHALL BE THE PURCHASE PRICE PAID BY THE USER OR BUYER FOR THE QUANTITY OF THIS PRODUCT INVOLVED, OR, AT THE ELECTION OF THIS COMPANY OR ANY OTHER SELLER, THE REPLACEMENT OF SUCH QUANTITY, IN, NO EVENT SHALL THIS COMPANY OR ANY OTHER SELLER BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES.

Buyer and all users are deemed to have accepted the terms of this LIMIT OF WARRANTY AND LIABILITY which may not be varied by any verbal or written agreement.

•	. 4
LIMIT OF WARRANTY AND LIABILITY	2.3
PRECAUTIONARY STATEMENTS	5, 6
ENVIRONMENTAL HAZAROS	6
INGREDIENTS	
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PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

Keep out of reach of children.

WARNING! AVISO!

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

CAUSES SUBSTANTIAL BUT TEMPORARY EYE INURY.

HARMFUL IF SWALLOWED OR INHALED.

Do not get in eyes or on clothing.

Avoid breathing vapor or spray mist.

FIRST AID: IF IN EYES, immediately hold eyetids open and flush with plenty of water for at least 15 minutes. Get medical attention.

IF INHALED, remove individual to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. Get medical attention.

IF SWALLOWED, this product will cause gastrointestinal tract irritation. Immediately dilute by swallowing water or milk. Get medical attention. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON.

Personal Protective Equipment (PPE)

Applicators and other handlers must wear: long-sleeved shirt and long pants, shoes plus socks, and protective eyewear. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in Worker Protection Standard (WPS) for agricultural desticides [40 CFR 170.240 (d) (4-6)), the handler PPE requirements may be reduced or modified as specified in the WPS.

User Safety Recommendations:

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toitet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

In case of an emergency involving this product, Call Collect, day or night, (314) 694-4000.

Environmental Hazards

Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters.

Physical or Chemical Hazards

Spray solutions of this product should be mixed, stored and applied using only stainless steel, aluminum, fiberglass, plastic or plastic-lined steel containers.

OO NOT MIX. STORE OR APPLY THIS PRODUCT OR SPRAY SOLUTIONS OF THIS PRODUCT IN GALVANIZED STEEL OR UNLINED STEEL (EXCEPT STAINLESS STEEL) CONTAINERS OR SPRAY TANKS. This product or spray solutions of this product react with such containers and tanks to produce hydrogen gas which may form a highly combustible gas, mixture could flash or explode, causing serious personal injury, it ignited by open flame, spark, welder's torch, lighted cigarette or other ignition source.

ACTIVE INGREDIENT

*Glyphosate, N-(phosphonomethyl)glycine, in the form of its isopropylamine satt 41.09 (NERT INGREDIENTS:

...<u>59.0%</u>

*Contains 480 grams per litre or 4 pounds per U.S. gallon of the active ingredient glyphosate, in the form of its isopropylamine salt. Equivalent to 356 grams per litre or 3 pounds per U.S. gallon of the actid, glyphosate.

This product is protected by U.S. Patent No. 4,405,531. Other patents pending. No license granted under any non-U.S. patent(s).

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in any manner inconsistent with its labeling. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulations.

Agricultural Use Requirements

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontains appetition, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is: coveralts, waterproof gloves, shoes plus socks, and protective everyear.

Non-Agricultural Use Requirements

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural posticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries or greenhouses.

Keep people and pets off treated areas until spray solution has dried to prevent transfer of this product onto desirable vegetation.

For more product information, call your nearest Helena Company representative.

Storage and Disposal

Do not contaminate water, foodstuffs, feed or seed by storage or discosal

See container label for STORAGE AND DISPOSAL instructions.

GENERAL INFORMATION

DO NOT APPLY THIS PRODUCT USING AERIAL SPRAY EQUIPMENT EXCEPT UNDER CONDITIONS AS SPECIFIED WITHIN THIS LABEL.

This product, a water soluble liquid, mixes readily with water to be applied as a foliar spray for the control or destruction of most herbaceous plants. It may be applied through most standard industrial or field-type sprayers after dilution and thorough mixing with water in accordance with label instructions.

This product moves through the plant from the point of foliage contact to and into the root system. Visible effects on most annual weeds occur within 2 to 4 days, but on most perennial weeds may not occur for 7 days or more. Extremely cool or cloudy weather following beatment may slow activity of this product and delay visual effects of control. Visible effects are a gradual willing and yellowing of the plant which advances to complete browning of above-ground growth and deterioration of underground plant parts.

Unless otherwise specified on this label, delay application until vegetation has emerged and reached the stages described for control of such vegetation under the "WEEDS CONTROLLED" section of this label. Unemerged plants arising from unattached underground rhizones or root stocks of perennials will not be affected by the herbicide and will continue to grow. For this reason, best control of most perennial weeds is obtained when treatment is made at late growth stages approaching maturity.

Always use the higher rate of this product per acre within the recommended range when (1) weed growth is heavy or dense, or (2) weeds are growing in an undisturbed (noncultivated) area.

Do not treat weeds under poor growing conditions such as drought stress, disease or insect damage, as reduced weed control may result. Reduced results may also occur when treating weeds heavily covered with dust

Reduced control may result when applications are made to annual or perennial weeds that have been mowed, grazed, or cut, and have not been allowed to regrow to the recommended stage for treatment.

Rainfall or irrigation occurring within 6 hours after application may reduce effectiveness. Heavy rainfall or irrigation within 2 hours after application may wash the chemical off the foliage and a repeat treatment may be required.

This product does not provide residual weed control. For subsequent residual weed control, follow a label-approved herbicide program. Read and carefully observe the cautionary statements and all other information appearing on the labels of all herbicides used.

Buyer and all users are responsible for all loss or damage in connection with the use or handling of mixtures of this product with herbicides or other materials that are not expressly recommended in this labeling. Mixing this product with herbicides or other materials not recommended on this label may result in reduced performance.

for best results, spray coverage should be uniform and complete. Do not spray weed foliage to the point of runoff.

DOMESTIC ANIMALS: This product is considered to be relatively nontoxic to dogs and other domestic animals: however, ingestion of this product or large amounts of freshly sprayed vegetation may result in temporary gastrointestinal irritation (vomiting, diarrhea, colic, etc.). If such symptoms are observed, provide the animal with plenty of fluids to prevent dehydration. Call a veterinarian if symptoms persist for more than 24 hours.

ATTENTION

AVOID DRIFT. EXTREME CARE MUST BE USED WHEN APPLYING THIS PRODUCT TO PREVENT INJURY TO DESIRABLE PLANTS AND CROPS.

Do not allow the herbicide solution to mist, drip, drift or splash onto desirable vegetation since minute quantities of this product can cause severe damage or destruction to the crop, plants or other areas on which treatment was not intended. The likelihood of injury occurring from the use of this product is greatest when winds are gusty or in excess of 5 miles per hour or when other conditions, including lesser wind velocities, will allow spray drift to occur. When spraying, avoid combinations of pressure and nozzle type that will result in splatter or fine particles (mist) which are likely to drift. AVOID APPLYING AT EXCESSIVE SPEED OR PRESSURF

NOTE: Use of this product in any manner not consistent with this label may result in injury to persons, animals or crops, or other unintended consequences. Keep container closed to prevent spills and contamination.

MIXING, ADDITIVES AND APPLICATION INSTRUCTIONS

APPLY THESE SPRAY SOLUTIONS IN PROPERLY MAINTAINED AND CALIBRATED EQUIPMENT CAPABLE OF DELIVERING DESIRED VOLUMES. DO NOT APPLY WHEN WIND OR OTHER CONDITIONS FAVOR DRIFT, HAND-GUN APPLICATIONS SHOULD BE PROPERLY DIRECTED TO AVOID SPRAYING DESIRABLE PLANTS, NOTE: REDUCED RESULTS MAY OCCUR IF WATER CONTAINING SOIL IS USED, SUCH AS WATER FROM PONDS AND UNLINED DITCHES.

MIXING

This product mixes readily with water. Mix spray solutions of this product as follows: Fill the mixing or spray tank with the required amount of water. Add the recommended amount of this product (see the "DIRECTIONS FOR USE" and "WEEDS CONTROLLEO" sections of this label) near the end of the filling process and mix well. Use caution to avoid sinhoning back into the carrier source. Use approved anti-back-siphoning devices where required by state or local regulations. During mixing and application, foaming of the spray solution may occur. To prevent or minimize foam, avoid the use of mechanical agitators, terminate by-pass and return lines at the bottom of the tank and, if needed, use an approved anti-foam or defoaming agent.

TANK MIXTURES

Always predetermine the compatibility of labeled tank mixtures of this product with water carrier by mixing small proportional quantities in advance.

Mix labeled tank mixtures of this product with water as follows:

- 1. Place a 20 to 35 mesh screen or wetting basket over filling port.
- Through the screen, fill the spray tank one-half full with water and start agitation.
- If a wettable powder is used, make a slurry with the water carrier, and add it SLOWLY through the screen into the tank. Continue agitation.
- If a flowable formulation is used, premix one part flowable with one part water. Add diluted mixture SLOWLY through the screen into the tank. Continue agitation.
- If an emulsifiable concentrate formulation is used, premix one part emulsifiable concentrate with two parts water. Add diffuted mixture slowly through the screen into the tank, Continue agitation.
- Continue filling the spray tank with water and add the required amount of this product near the end of the filling process.
- Where nonionic surfactant is recommended, add this to the spray tank before completing the filling process.
- Add individual formulations to the spray tank as follows: wettable powder, flowable, emulsifiable concentrate, drift control additive, water soluble liquid followed by surfactant.

Maintain good agitation at all times until the contents of the tank are sprayed. If the spray mixture is allowed to settle, thorough agitation is required to resuspend the mixture before spraying is resumed.

Keep by-pass line on or near bottom of tank to minimize foaming. Screen size in nozzle or line strainers should be no finer than 50 mesh. Carefully select proper nozzle to avoid spraying a fine mist. For best results with conventional ground application equipment, use flat fan nozzles.

Clean sprayer and parts immediately after using this product by thoroughly flushing with water.

ADDITIVES

SURFACTANTS

Nonionic surfactants which are labeled for use with herbicides may be used. Do not reduce rates of this product when adding surfactant. When adding additional surfactant, use 0.5 percent surfactant concentration (2 quarts per 100 gallons of spray solution) when using surfactants which contain at least 70 percent active ingredient or all percent surfactant concentration (4 quarts per 100 gallons of spray solution) for those surfactants containing less than 70 percent active ingredient. Read and carefully observe surfactant cautionary statements and other information appearing on the surfactant label.

AMMONIUM SULFATE

The addition of 1 to 2 percent dry ammonium sulfate by weight or 8.5 to 17 pounds per 100 gallons of water may increase the performance of this product, and this product plus 2,4-D, Banvel^{1M} or residual herbicide tank mixtures on annual and perennial weeds. The improvement in performance may be apparent where environmental stress is a concern. Low-quality ammonium sulfate may contain material that will not readily dissolve, which could result in nozzle tip plugging. To determine quality, perform a jar test by adding 1/3 cup of ammonium sulfate to 1 gallon of water and agitate for 1 minute. If undissolved sediment is observed, predissolve the ammonium sulfate in water and filter prior to addition to the spray lank. If ammonium sulfate is added directly to the spray tank, add slowly with agitation. Adding too quickly may clog outlet line. Ensure that ammonium sulfate is completely dissolved in the spray lank before adding herbicides or surfactant. Thoroughly rinse the spray system with clean water after use to reduce corrosion.

NOTE: The use of ammonium sulfate as an additive does not preclude the need for additional surfactant. Do not use herbicide rates lower than recommended in this label.

COLORANTS OR DYES

Agriculturally-approved colorants or marking dyes may be added to this product. Colorants or dyes used in spray solutions of this product may reduce performance, especially at lower rates or dilutions. Use colorants or dyes according to the manufacturer's recommendations.

APPLICATION EQUIPMENT AND TECHNIQUES

Do not apply this product through any type of irrigation system.

This product may be applied with the following application equipment:

Aerial—Fixed Wing and Helicopter

Broadcast Spray

Controlled Droplet Applicator (CDA) — Hand-held or boommounted applicators which produce a spray consisting of a narrow range of droplet sizes.

Hand-Held and High-Volume Spray Equipment — Knapsack and backpack sprayers, pump-up pressure sprayers, handguns, handwands, mistblowers*, lances and other hand-held and motorized spray equipment used to direct the spray onto weed toliage.

*This product is not registered in California or Arizona for use in mistblowers.

Selective equipment—Recirculating sprayers, shielded sprayers and wiper applicators.

See the appropriate part of this section for specific instructions and rates of application.

AERIAL EQUIPMENT

Use the recommended rates of this herbicide in 3 to 15 gallons of water per acre unless otherwise specified on this label. See the "WEEDS CONTROLLED" section of this label for specific rates. Unless otherwise specified, do not exceed 1 quart per acre. Aerial applications of this product may be made in annual cropping conventional tillage systems, fallow and reduced tillage systems and preharvest applications. Refer to the individual use area sections of this label for recommended volumes and application rates. FOR AERIAL APPLICATION IN CALIFORNIA, REFER TO THE FEDERAL SUPPLEMENTAL LABEL FOR AERIAL APPLICATIONS IN THAT STATE FOR SPECIFIC INSTRUCTIONS, RESTRICTIONS AND REQUIREMENTS.

Avoid direct application to any body of water.

AVOID DRIFT—DO NOT APPLY DURING LOW-LEVEL INVERSION CON-DITIONS, WHEN WINDS ARE GUSTY.OR UNDER AMY OTHER CONDI-TION WHICH FAVORS DRIFT. DRIFT MAY CAUSE DAMAGE TO ANY VEGETATION CONTACTED TO WHICH TREATMENT IS NOT INTENDED. TO PREVENT INJURY TO ADJACENT DESIRABLE VEGETATION, APPRO-PRIATE BUFFER ZONES MUST BE MAINTAINED.

Coarse sprays are less likely to drift; therefore, do not use nozzles or nozzle configurations which dispense spray as fine spray droptets. Oo not angle nozzles forward into the airstream and do not increase spray volume by increasing nozzle pressure.

Drift control additives may be used. When a drift control additive is used, read and carefully observe the cautionary statements and all other information appearing on the additive label.

Ensure uniform application—To avoid streaked, uneven or overlapped application, use appropriate marking devices.

Thoroughly wash aircraft, especially landing gear, after each day of spraying to remove residues of this product accumulated during spraying or from spills, PROLONGED EXPOSURE OF THIS PRODUCT TO UNCOATED STEEL SURFACES MAY RESULT IN CORROSION AND POSSIBLE FAILURE OF THE PART, LANDING GEAR ARE MOST SUSCEPTIBLE. The maintenance of an organic coating (paint), which meets aerospace specification MIL-C-38413, may prevent corrosion.

This product plus OustTM, Banvel or 2,4-D tank mixtures may not be applied by air in California.

BROADCAST EQUIPMENT

For control of annual or perennial weeds listed on this label using broadcast equipment—Use the recommended rates of this product in 3 to 40 gallons of water per acre as a broadcast spray unless otherwise specified on this label. See the "WEEDS CONTROLLED" section of this label for specific rates. As density of weeds increases, spray volume should be increased within the recommended range to ensure complete coverage. Carefully select proper nozzle to avoid spraying a fine mist. For best results with ground application equipment, use flat fan nozzles. Check for even distribution of spray droplets.

CONTROLLED DROPLET APPLICATION (CDA)

The rate of this product applied per acre by vehicle-mounted CDA equipment must not be less than the amount recommended in this label when applied by conventional broadcast equipment. For vehicle-mounted CDA equipment, apply 3 to 15 gallons of water per acre.

For the control of labeled annual weeds with hand-held CDA units, apply a 20 percent solution of this product at a flow rate of 2 fluid ounces per minute and a walking speed of 1.5 mph (1 quart per acre). For the control of labeled perannal weeds, apply a 20 to 40 percent solution of this product at a flow rate of 2 fluid ounces per minute and a walking speed of 0.75 mph (2 to 4 quarts per acre).

Controlled droplet application equipment produces a spray pattern which is not easily visible. Extreme care must be exercised to avoid spray or drift contacting the foliage or any other green tissue of desirable vegetation, as damage or destruction may result.

HAND-HELD and HIGH-VOLUME EQUIPMENT

Use coarse sprays only.

Mix this product in clean water and apply to foliage of vegetation to be controlled. For applications made on a spray-to-wet basis, spray coverage should be uniform and complete. Do not spray to the point of runoff.

For control of annual weeds listed on this label, apply a 0.5 percent solution of this product plus nonionic surfactant to weeds less than 6 inches in height or runner length. Apply prior to seedhead formation in grass or bud formation in broadleaf weeds. Allow three or more days before tillage or mowing.

For annual weeds over 6 inches tall, or when not using additional surfactant, or unless otherwise specified, use a 1 percent solution. For best results, use a 2 percent solution on harder-to-control perennials.

such as bermudagrass, dock, field bindweed, hemp dogbase, milkweed and Canada thistle.

When using application methods which result in less than complete coverage, use a 5 percent solution for annual and perennial weeds and a 5 to 10 percent solution for woody brush and trees.

Prepare the desired volume of spray solution by mixing the amount of this product in water as shown in the following table:

Spray Solution

Desired	Amount of Rattier®						
Volume	1/2%	1%	11/2%	2%	5%	10%	
1 Gal	2/3 07	11/3 02	2 oz	27/3 07	61/2 07	13 oz	
25 Ga!	1 pt	I at	11/2 at	2 at	5 at	10 at	
100 Gal	. 2 qt	1 gal	11/2 gal	2 gal	5 gal	10 gal	

For use in knapsack sprayers, it is suggested that the recommended amount of this product be mixed with water in a larger container. Fill sprayer with the mixed solution.

SELECTIVE EQUIPMENT

This product may be applied through a recirculating spray system, a shielded applicator, or a wiper applicator after dilution and thorough mixing with water to listed weeds growing in any noncrop site specified on this label and only when specifically recommended in cropping systems.

A recirculating spray system directs the spray solution onto weeds growing above desirable vegetation, while spray solution not intercepted by weeds is collected and returned to the spray tank for reuse.

A shielded applicator directs the herbicide solution onto weeds, while shielding desirable vegetation from the herbicide.

A wiper applicator applies the herbicide solution onto weeds by rubbing the weed with an absorbent material containing the herbicide

AVOID CONTACT WITH DESIRABLE VEGETATION.

Contact of the herbicide solution with the desirable vegetation may result in damage or destruction. Applicators used above desired vegetation should be adjusted so that the lowest spray stream or wiper contact point is at least 2 inches above the desirable vegetation. Droplets, mist, foam, or splatter of the herbicide solution settling an desirable vegetation may result in discoloration, stunting or destruction.

Applications made above the crops should be made when the weeds are a minimum of 6 inches above the desirable vegetation. Better results may be obtained when more of the weed is exposed to the herbicide solution. Weeds not contacted by the herbicide solution will not be affected. This may occur in dense clumps, severe intestations or when the height of the weeds varies so that not all weeds are contacted. In these instances, repeat treatment may be necessary.

SHIELDED APPLICATORS

When applied as directed under conditions described for shielded applicators, this product will control those weeds listed in the "WEEDS CONTROLLED" section of this label.

Use the following equation to convert from a broadcast rate per acre to a band rate per acre.

Row width in inches	X	Herbicide Broadcast RATE per acre	#	Herbicide Band RATE per acre
Band width <u>in inches</u> Row width in inches	X	Broadcast VOLUME of solution per acre	22	Band VOLUME of solution per acre

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Use nozzles that provide uniform coverage within the treated area. Keep shields on shielded sprayers adjusted to protect desirable vegetation. EXTREME CARE MUST BE EXERCISED TO AVOID CONTACT WITH DESIRABLE VEGETATION.

For specific rates of application and instructions for control of various annual and perennial weeds, see the "WEEDS CONTROLLED" section of this label.

WIPER APPLICATORS

Wiper applicators are devices that physically wipe appropriate amounts of this product directly onto the weed.

Equipment must be designed, maintained and operated to prevent the herbicide solution from contacting desirable vegetation. Operate this equipment at ground speeds no greater than 5 mph. Performance may be improved by reducing speed in areas of heavy weed infestations to ensure adequate wiper saturation. Better results may be obtained if 2 applications are made in opposite directions.

Avoid leakage or dripping onto desirable vegetation. Adjust height of applicator to ensure adequate contact with weeds. Keep wiping surfaces clean. Be aware that, on sloping ground, the herbicide solution may migrate, causing dripping on the lower end and drying of the wicks on the upper end of a wiper applicator,

Do not use wiper equipment when weeds are wet.

Mix only the amount of solution to be used during a 1-day period, as reduced activity may result from use of leftover solutions. Clean wiper parts immediately after using this product by thoroughly flushing with

Do not add surfactant to the herbicide solution.

For Rope or Sponge Wick Applicators --- Mix 1 gallon of this product in 2 gallons of water to prepare a 33 percent solution. Apply this solution to weeds listed in this "WIPER APPLICATORS" section.

For Porous-Plastic Applicators—Solutions ranging from 33 to 100 percent of this product in water may be used in porous-plastic wiper applicators.

When applied as recommended under the conditions described for "WIPER APPLICATORS", this product CONTROLS the following weeds:

ANNUAL GRASSES

Согл

Rye, common

Zea mays Panicum, Texas

Secale cereale

Shattercane

Panicum texanum

Sorghum bicolor

ANNUAL BROADLEAVES Sicklepod

Starbur, bristly

Cassia obtusitolia

Spanishneedles

Bidens bipinnata

Acanthospermum hispidum

When applied as recommended under the conditions described for "WIPER APPLICATORS", this product SUPPRESSES the following

ANNUAL BROADLEAVES

Beggarweed, Florida

Ragweed, giant

Desmodium tortuosum

Ambrasia trifida

Dogtennet Eupatorium capitlitlorium

Sunflower Helianthus annuus

Proweed, redroot

Thistle, musk

Amaranthus retroflexus

Carduus nutans

Ragweed, common Ambrosia artemisiitolia

Yelvetieaf Abutilon theophrasti

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PERENNIAL GRASSES

Bermudagrass

Cynodon dactylon

Smutgrass Sporabolus pairetti

Guineagrass Panicum maximum Vaseygrass Paspalum urvillei

Johnsongrass

Sorghum halepense

PERENNIAL BROADLEAVES

Dogbane, hemp

Nightshade, silverleaf Solanum elaeagnilolium

Аросупит саппавіпит Milkweed

Thistle, Canada

Ascelepias syriaca

Cirsium arvense

WEEDS CONTROLLED

This herbicide controls many annual and perennial grasses and broadleaf weeds.

ANNUAL WEEDS

- · Apply to actively growing grass and broadleaf weeds.
- · Allow at least 3 days after treatment before tillage.
- · for maximum agronomic banefit, apply when weeds are 6 inches or
- . To prevent seed production, applications should be made prior to seedhead formation.
- This product does not provide residual control; therefore, delay application until maximum weed emergence. Repeat treatments may be necessary to control later germinating weeds.

LOW-VOLUME BROADCAST APPLICATION (LOW-RATE TECHNOLOGY)

When applied as directed under the conditions described, this product will control the weeds listed below when:

- 1. Water carrier volumes of 3 to 10 gallons per acre for ground applications and 3 to 5 gallons per acre for aerial applications are recommended. (See the "AERIAL APPLICATION" section of this label for approved sites.)
- 2. A nonionic surfactant is added at 0.5 to 1 percent by total spray volume. Use 0.5 percent surfactant concentration when using surfactants which contain at least 70 percent active ingredient or a 1 percent surfactant concentration for those surfactants containing less than 70 percent active ingredient.

NOTE

- The addition of 2 percent dry ammonium sulfate by weight or 17 pounds per 100 gallons of water may increase the performance of this product on annual weeds. The improvement in performance may be apparent where environmental stress is a concern. Refer to the "MIXING, ADDITIVES and APPLICATION INSTRUCTIONS" section
- Do not tank-mix with soil residual herbicides when using these rates unless otherwise specified.
- For weeds that have been mowed, grazed or cut, allow regrowth to occur prior to treatment.
- Refer to the "TANK MIXTURES" portion of this section for control of additional broadleaf weeds.

WEED SPECIES	MAXIMUM HEIGHT/LENGTH	RATE PER ACRE* (Fluid Ounces)
Foxtail Setaria spp.	12*	8 pz.
Barnyardgrass Echinochloa crus-galli	6" (0 to 4" (4 to 6"	12 oz. 16 oz.¹) 24 oz.³)
Bluegrass, annual Poa annua	li Ii	
Brome, downy** Bromus tectorum		
Mustard, blue Chorispora tenella		
Mustard, tansy Descurainia pinnata	;	
Mustard, tumble Sisymbrium altissimum		
Mustard, wild Sinapis arvensis		
Spurry, umbrelia Holosteum umbelletum		
Bartey Hordeum vulgare	12"	
Rye Secale cereale		
Sandbur, field Cenchrus spp.		

Aeplops cylindrica Groundsel, common Senecio vulgaris enbit Lamium amplexicaule orseweed/Marestail	Ī					
Wheat Inticum aestivum Morningglory Ipomoea spp. Sicklepud Cassia obtusifotia Bluegrass, bulbous Poa bulbosa Cheat Bromus-secatinus Chickweed, common Stellaria media Chickweed, mouseear Cerastium vulgatum Corn Zea mays Goatgrass, jointed Aepiops cylindrica Groundsel, common Senecio vulgatis enbit Lamium amplexicaute prseweed/Marestail	Sorghum bicolor Stinkgrass	ės.			1	•
Sicklepod Cassia obtusifolia Bluegrass, bulhous Poa bulbosa Cheat Bromus-secatinus Chickweed, common Stellaria media Chickweed, mouseear Cerastium vulgatum Corn Zea mays Goatgrass, jointed Aepilops cylindrica Groundsel, common Senecio vulgaris enbit Lamium amplexicaute prseweed/Marestail	Wheat		18-			
Cheat Bromus-secatinus Chickweed, common Stellaria media Chickweed, mouseear Cerastium vulgatum Corn Zea mays Goatgrass, jointed Aepiops cylindrica Groundsel, common Senecio vulgatis enbit Lamium amplexicaule prseweed/Marestail	<i>lpomoea spp.</i> Sicklepod		2"	- 	16 az.	-
orseweed/Marestail Conyza canadensis	Proa bulbosa Cheat Bromus-secatinus Chickweed, common Stellaria media Chickweed, mouseear Cerastium vulgatum Corn Zea mays Goatgrass, jointed Aeplops cylindrica Groundsel, common Senecio vulgatis enbit Lamium amplexicaule		6*			
	orseweed/Marestail Conyza canadensis					

The state of the s

,	MAXIMUM	RATE PER ACRE*
VEED SPECIES	HEIGHT/LENGTH	(Fluid Ounces)
ambsquarters, common Chenopodium album	6•	16 oz.
Pennycress, field		
Fanweed Thiaspi arvense		
Rocket, London Sisymbiium irio		
Ryegrass, Italian Lolium multiflorum	-	
Shepherdspurse Capsella bursa-pastoris		
Spurge, annual Euphorbia spp.		 -
Burtercup Ranunculus spp.	12"	}
Cocklebur Xanthium strumarium		
Crabgrass Digitaria spp.		
Dwarddandelion Krigia cespitosa		
Falseflax, smallseed Camelina microcarpa		1
Foxtail, Carolina Alopecurus carolinianus	ļ	
Johnsongrass, seedling		
Sorghum halepense Oats, wild		
Avena fatua Panicum, fali		
Panicum dichotomiflorum		
Panicum, Texas Panicum texanum		
Pigweed, redroot Amaranthus retroflexus		
Pigweed, smooth Amaranthus hybridus		1
Witchgrass Panicum capillare		
Sicklepod Cassia obtusilolia	3 to 4"	24 oz.
Signalgrass, broadleaf Brachiaria platyphylla	4"	
Horseweed/Marestail Conyza canadensis	7 to 12"	
Lambsquarters, common Chenopodium album		
Spurge, annual Euphorbia spp.		
Rice, red Oryza sativa	4*	32 oz.
Teaweed Sida spinosa		
	1	

WEED SPECIES	MAXIMUM HEIGHT/LENGTH	RATE PER ACRE* (Fluid Ounces)
Sprangletop Leptochloa spp.	6-	32 oz.
Geranium, Carolina Geranium carolinianum	12*	
Goosegrass Eleusine indica		
Primrose, cutleat evening Oenothera laciniate		
Pusley, Florida Richardia scabra		
Sicklepod Cassia obtusilolia	5 to 12"	
Spanishneedles Bidens bipinnata		
Filaree Erodium spp. –	12*	48 oz.
Sprangletop Leptochloa spp.		

¹Use these rates to control barnyardgrass in Alabama, Arkansas, Mississippi, Missouri, Louisiana and Texas for preplant treatments.

- For those rates less than 32 fluid ounces per acre, this product at rates up to 32 fluid ounces per acre may be used where heavy weed densities exist.
- ** For control in no-till systems, use 16 fluid ounces per acre.

TANK MIXTURES

RATTLER® plus BANVEL plus Nonionic Surfactant

RATTLER plus 2,4-D plus Monionic Surfactant

DO NOT APPLY BANVEL OR 2.4-D TANK MIXTURES BY AIR IN CALIFORNIA.

These tank mixtures are recommended for use in fallow and reduced tillage areas only. Follow use directions as given in the "LOW-VOLUME BROADCAST APPLICATION" section.

This product plus Banvel or 2,4-0 will control the annual grasses and broadleaf weeds listed for this product alone at the indicated heights broadleaf weeds. For those weeds previously listed at 8 fluid ounces of this product alone per acre, use 12 fluid ounces in these tank

NOTE: Refer to the specific product labels for crop rotation restrictions and cautionary statements of all products used in tank mixtures. Some crop injury may occur if Banvel is applied within 45 days of planting. The addition of Banvel in a mixture with this product may provide short-term residual control of selected weed species.

Apply 12 to 16 fluid ounces of this product-plus 0.25 pound a.i. of Banvel or 0.5 pound a.i. of 2.4-0, plus 0.5 to 1 percent nonionic of the following annual broadleaf weeds when less than the height

Cocklebur (12")

Xanthium strumarium

Kochia* (6") Kochia scoparia Pigweed, redroot (12")

Morningglory (6°)

lpomoea spp.

Lambsquarters (12°)

Amaranthus retroflexus Pigweed, smooth (12")

Chenopodium album

Amaranthus hybridus

Lettuce, prickly (6") Lactuca serriola

Thistle, Russian (12°) Salsola kali

Marestail/Horseweed (6°)

Conyta canadensis

*Controlled with Banvel tank mixture only.

Apply 16 fluid ounces of this preduct plus 0.5 pound a.i. of 2,4-D, plus 0.5 to 1 percent nonionic surfactant by total spray volume per acre to control the following annual broadleaf weeds when less than 6 inches in height.

Ragweed, common Ambrosia artemisiifolia Smartweed, Pennsylvania Polygonum pensylvanicum

Ragweed, giant Ambrosia trifida Velvetteaf Abutilon theophrasti

HIGH-VOLUME BROADCAST APPLICATIONS

When applied as directed under the conditions described, this product will control the weeds listed below when water carrier volumes are 10 to 40 gallons per acre for ground applications.

Apply 1 to 1.5 quarts of this product per acre plus 0.5 to 1 percent nonionic surfactant by total spray volume. Use I quart per acre if weeds are less than 6 inches tall and 1.5 quarts per acre if weeds are over 6 inches tall. If weeds have been mowed, grazed or cut, allow adequate time for new growth to reach recommended stages prior to treatment. These rates will also provide control of weeds listed in the "LOW-VOLUME BROADCAST APPLICATION" section.

WEED SPECIES

Baisamappie* Momordica charantia

Bassia, fivehook

Bassia hyssopilalia

Brome Bromus spp.

Fiddleneck: Amsinckia spp.

Fleabane, hairy Conyra bonatiensis

Fleabane Erigeron spp.

Kochia Kochia scoparia

Lettuce, prickly

Lactuca serriola

Panicum Panicum spp.

Ragweed, common Ambrosia artemisiifolia

Ragweed, giant Ambrosia trifida

Smartweed, Pennsylvania Polygonum pensylvanicum

Sowthistle, annual Sonchus cleraceus

Sunflower Helianthus annuus

Thistle, Russian Salsola kali

Velvetleaf Abutilan theophrasti

*Apply with hand-held equipment only.

PERENNIAL WEEDS

Apply this product as follows to control or destroy most perennial

NOTE: If weeds have been mowed or tilled, do not treat until plants have resumed active growth and have reached the recommended

Repeat treatments may be necessary to control weeds regenerating from underground parts or seed. Repeat treatments must be made

The addition of 1 to 2 percent dry ammonium sulfate by weight or 8.5 to 17 pounds per 100 gallons of water may increase the performance

of this product on perennial weeds. The improvement in performance may be apparent where environmental stress is a concern. Refer to the "MIXING, ADDITIVES and APPLICATION INSTRUCTIONS" section of this label.

When applied as recommended under the conditions described, this product WILL CONTROL the following PERENNIAL WEEDS:

Alfalfa

Medicago sativa

Alligatorweed*

Alternanthera philoxeroides

Anise (tennel)

Foeniculum vulgare

Artichoke, Jerusalem Helianthus tuberosus

Bahiagrass

Paspatum notatum

Bentgrass Agrostis spp.

Bermudagrass

Cynodon dactylon

Bermudagrass, water (knotgrass) Paspalum distichum

Bindweed, field

Convolvulus arvensis Bluegrass, Kentucky

Poa sop.

Blueweed, Texas Helianthus ciliaris

Brackenfern Pteridium aquilinum

Festuca arundinacea

Guineagrass Pancium maximum

Horsenettle Solanum carolinense

Horseradish Armoracia rusticana

Ice plant Mesembryanthemum

crystallinum Johnsongrass

Sorghum halepense Kikuyugrass

Pennisetum clandestinum Knapweed

Centaurea repens Lantana

Lantana camata Lespedeza

Lespedeza spp. Milkweed Asclepias spp.

Muhly, wirestem Muhlenbergia frondonsa

Mullein, common Verbascum thapsus

Napiergrass Pennisetum purpureum Bromegrass, smooth Bromus inermis

Bursage, woottyleaf Franseria tomentosa

Canarygrass, reed Phalaris arundinacea

Cartail
Typha spp.
Clover, red
Trifolium pratense
Clover, white

Infolium repens Cogongrass

Imperata cylindrica
Dallisgrass

Paspalum dilatatum Dandelion

Taraxacum officinale

Dock, carly Rumex crispus

Dogbane, hemp Apocynum cannabinum

Fescues Festuca spp.

nightshade, silverteat Solanum elaeagnifolium

Nutsedge: purple, yellow Cyperus rotundus Cyperus esculentus

Orchardgrass Dactylis glomerata

Pampasgrass Cortaderia spp. Paragrass

· Brachiaria mutica Phragmites*

Phragmites spp. Poison hemlock Conium maculatum

Quackgrass
Agropyron repens
Redvine*

Brunnichia ovata Reed, giant

Arundo donax Ryegrass, perenniat Lolium perenne

Smartweed, swamp Polygonum coccineum

Spurge, leaty*
Euphorbia esula
Starthistle, yellow
Centaurea solstitalis

Sweet potato, wild*

Trumpetcreeper* Campsis radicans ipomoea pandurata Vaseygrass

Thislle Canada Cirsium arvense Paspalum urvillei

Thistle, artichoke Cynara cardunculus ZZETgłsylsy Halcus spp

Timothy Phleum pratense Wheatgrass, western Agropyron smithir

Torpedograss* Panicum repens

This product is not registered in California for use on water bermuda-

See "DIRECTIONS FOR USE" and "MIXING, ADDITIVES and APPLICA-TION INSTRUCTIONS" sections of this label for tabeled uses and

Alfalfa—Apply 1 quart of this product per acre plus 0.5 to 1 percent specific epplication instructions. notionic suffectant by total spray volume in 3 to 10 gallons of water per acre. Make application after the last hay cutting in the fall. Allow

per acres in an expension after the last has futured in the real alfalfa to regrow to a height of 6 to 8 inches or more prior to treatment. Applications should be followed with deep tillage at least ? days after treatment, but before soil freeze-up.

Alligatorweed—Apply 4 quarts of this product per acre or apply a Hingaror week with hand-held equipment to provide partial contol. Apply when most of the plants are in bloom. Repeat applications

will be required to maintain such control. Anise (tennel) / Poison hemlock—Apply a 1 to 2 percent solution of this product as a spray-to-wet treatment. Optimum results are obtained when plants are treated at the bud to full-bloom stage of growth. Repeat applications may be needed in succeeding years to control plants arising from seeds.

Bentgrass-For suppression in grass seed production areas. For ground applications only, apply 1.5 quarts of this product plus 0.5 to I percent nonionic surfactant by total spray volume in 10 to 20 gallons of water per acre. Ensure entire crown area has resumed growth prior to a fall application. Bentgrass should be actively growing and have at least 3 inches of growth. Tillage prior to treatment should be avoided. Tillage 7 to 10 days after application is recommended for best results. Failure to use tillage after treatment may result in unacceptable control.

Bermudagrass-For control, apply 5 quarts of this product per acre. For partial control, apply 3 quarts per acre. Treat when bermudagrass is actively growing and seedheads are present. Retreatment may be necessary to maintain control. Allow 7 or more days after application before tillage.

Bermudagrass, water (knotgrass) - Apply 1.5 quarts of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 5 to 10 gallons of water per acre. Apply when water bermudagrass is actively growing and 12 to 18 inches in length. Allow 7 or more days before tilling flushing or flooding the field.

Fall applications only-Apply I quart of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 5 to 10 gallons of water per acre. Fallow fields should be tilled prior to application. Apply prior to frost on water bermudagrass that is actively growing and 12 to 18 inches in length. Allow 7 or more days before tillage.

Bindweed, field-For control, apply 4 to 5 quarts of this product per acre west of the Mississippi River and 3 to 4 quarts east of the Mississippi River. Apply when the weeds are actively growing and are at or beyond full bloom. Do not treat when weed is under drought stress as good soil moisture is necessary for active growth. For best results, apply in late summer or fall. Fall treatments must be applied before a killing frost. Allow 7 or more days after application before Also for control, apply 2 quarts of this product plus 0.5 pound a.i. of Banvel in 10 to 20 gallons of water per acre. At these rates, apply using ground application only.

The following tank mixtures with 2.4-D may be applied using aerial application equipment (except in California) in fallow and reduced fillage systems only.

For suppression on irrigated agricultural land, apply 1 to 2 quarts of this product plus 1 pound a.i. of 2.4-0 in 10 to 20 gallons of water per acre with ground equipment only. Applications should be made following harvest or in fall fallow ground when the bindweed is actively growing and the majority of runners are 12 inches or more in length. The use of at least one irrigation will promote active bindweed growth.

For suppression, apply 16 fluid ounces of this product plus 0.5 pound a.i. of 2,4-0 plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre for ground applications and 3 to 5 gallons of water per acre for aerial applications. Applications should be delayed until maximum emergence has occurred and when vines are between 6 to 18 inches in length.

In California only, apply 1 to 5 quarts of this product per acre. Actual rate needed for suppression or control will vary within this range depending on local conditions.

For suppression on irrigated land where annual tillage is performed, apply 1 quart of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. Apply to actively growing bindweed that has reached a length of 12 inches or greater. Allow maximum weed emergence and runner growth. Do not treat when weeds are under drought stress as good soil moisture is necessary for active growth. Allow 3 or more days after application before tillage.

Bluegrass, Kentucky / Bromegrass, smooth / Orchardgrass— Apply 2 quarts of this product in 10 to 40 gallons of water per acre when the grasses are actively growing and most plants have reached boot-to-early seedhead stage of development. For partial control in

pasture or hay crop renovation, apply 1 to 1.5 quarts of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. Apply to actively growing plants when after application before tiltage.

Orchardgrass (sods going to no-tifl corn)—Apply I to 1.5 quarts of this product per acre plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. Apply to orchardgrass that is a minimum of 12 inches tall for spring applications and 6 inches tall for tall applications. Allow at least 3 days alrazine will be necessary for optimum results.

Blueweed, Texas—Apply 4 to 5 quarts of this product per acre west of the Mississippi River and 3 to 4 quarts per acre east of the Mississippi River. Apply when weed is actively growing and is at or good soil moisture is necessary for active growth. New leaf developor influences active growth. New leaf developor fall. Fall treatments must be applied before a killing frost. Allow 7 Reachast.

Brackenfern—Apply 3 to 4 quarts of this product per acre as a equipment. Apply to fully expanded fronds which are at least 18

Bursage, woollyleaf—For control, apply 2 quarts of this product plus 1 pint of Banvel per acre. For partial control, apply 1 quart of this product plus, 1 pint of Banvel per acre. Add 0.5 to 1 percent nonionic surfactant by total spray volume and apply in 3 to 20 gallons of water per acre. Apply when plants are producing new active growth which has been initialed by moisture for at least 2 weeks and when plants are at or beyond flowering.

Canarygrass, reed / Timothy / Wheatgrass, western—Apply 2 to 3 quarts of this product per acre. For best results, apply to actively growing plants when most have reached the boot-to-head stage of growth. Allow 7 or more days after application before tillage.

Cogongrass—Apply 3 to 5 quarts of this product plus 0.5 to 1 percent nonionic surfactant in 10 to 40 gallons of water per acre. Apply when Cogongrass is at teast 18 inches tall and actively growing in tate summer or fall. Allow 7 or more days after application before tillage or mowing. Oue to uneven stages of growth and the dense nature of vegetation preventing good spray coverage, repeat treatments may be necessary to maintain control.

Dandetion / Oock, curly—Apply 3 to 5 quarts of this product per acre when plants are actively growing and most have reached the early bud stage of growth. Allow 7 or more days after application before liflage.

Also for control, apply 16 fluid ounces of this product plus 0.5 pound a.i. 2,4-D plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre.

Dogbane, hemp—Apply 4 quarts of this product per acre. Apply when actively growing and when most weeds have reached the late bud to flower stage of growth. Following crop harvest or mowing, allow weeds to regrow to a mature stage prior to treatment. For best results, apply in late summer or fall. Allow 7 or more days after application before tillage.

For suppression, apply 16 fluid ounces of this product plus 0.5 pound a.i. of 2,4-0 plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre for ground applications and 3 to 5 gallons of water per acre for aerial applications. Delay applications until maximum emergence of dogbane has occurred.

Fescue, tall—Apply 3 quarts of this product in 10 to 40 gallons of water per acre to actively growing plants when most have reached boot-to-early seedhead stage of development.

Fall applications only—Apply 1 quart of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. Apply to lescue in the fall when actively growing and plants have 6 to 12 inches of new growth. Allow 7 or more days after this product plus nonionic surfactant will improve long-term control and control seedlings germinating after fall treatments or the follow-

Guineagrass—Apply 3 quarts of this product per acre or use a 1 percent solution with hand-held equipment. Apply to actively growing growth. Ensure thorough coverage when using hand-held equipment. Allow 7 or more days after application before tillage.

Johnsongrass / Ryegrass, perennial—Apply 1 to 3 quarts of this product per acre. In annual cropping systems apply 1 to 2 quarts of this product per acre. Apply 1 quart of this product plus 0.5 to 1 percent noniquic surfactant by total spray volume in 3 to 10 gallons of water per acre. Use 2 quarts of this product when applying 10 to 40 (no-till) is not performed, apply 2 to 3 quarts of this product in 10 to 40 gallons of water per acre. For best results, apply to actively grower in the fall prior to frost. Allow 7 or more days after application the 1 quart per acre rate.

For burndown of Johnsongrass, apply 1 pint per acre plus 0.5 to 1 percent nonionic surfactant in 3 to 10 gallons of water per acre before days after treatment before titlage.

Spot treatment (partial control or suppression)—Apply a 1 percent total spray volume when Johnsongrass is 12 to 18 inches in height.

Mikuyugrass—Apply 2 to 3 quarts of this product per acre. Spray when most kikuyugrass is at least 8 inches in height (3- or 4-leaf stage of growth) and actively growing. Allow 3 or more days after application before tillage.

Knapweed / Horseradish—Apply 4 quarts of this product per acre. Apply when actively growing and when most weeds have reached the late bud to flower stage of growth. Following crop harvest or mowing, allow weeds to regrow to a mature stage prior to treatment. For best results, apply in late summer or fall, Allow 7 or more days after application before tillage.

Lantana—Apply this product as a 1 to 1.25 percent solution using hand-held equipment only. Apply to actively growing lantana at or beyond the bloom stage of growth. Use the higher application rate for plants that have reached the woody stage of growth. Allow 7 or more days after application before tillage.

Mitkweed, common—Apply 3 quarts of this product per acre. Apply when actively growing and most of the milkweed has reached the late bud to flower stage of growth. Following small grain harvest or mowing, allow milkweed to regrow to a mature stage prior to treatment. Allow 7 or more days after application before tillage.

Muhly, wirestem—Apply 1 to 2 quarts of this product per acre. Use 1 quart of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. Use 2 quarts of this product when applying 10 to 40 gallons of water per acre or in pasture, sod, or noncrop areas. Spray when the wirestem muhly is 8 inches or more in height and actively growing. Do not till between harvest and fall applications or in the fall or spring prior to spring applications. Altow 3 or more days after application before tillage. This product will not provide residual control of wirestem muhly from seeds which germinate after application of this product. Do not tank mix with residual herbicides when using the 1 quart per acre rate.

Nightshade, silverteat—For control, apply 2 quarts of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. Applications should be made when at least 60 percent of the plants have berries. Fall treatments must be before a killing frost. Allow 7 or more days after application soil moisture is necessary for active growth.

Mutsedge: purple, yellow—Apply 3 quarts of this product per acre as a broadcast spray, or apply a 1 to 2 percent solution from handheld equipment to control existing nutsedge plants and immature when new nullets can be found at rhizome tips. Nutlets with have treatment. Repeat treatments will be required for long-term control of security of the sec

Sequential applications of 1 to 2 quarts of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acte will provide control. Make applications when a majority of the plants are in the 3- to 5-leaf stage (less than 6 inches tall) reach the 3- to 5-leaf stage. Subsequent applications will be necessary for long-term control.

For suppression to partial control of existing plants, apply 1 pint to 2 quarts of this product per acre, plus 0.5 to 1 percent nonionic surfaction in 3 to 40 gallons of water per acre. Treat when plants have 3 to 5 leaves and most are less than 6 inches tall, Repeat treatments will existing plants. Wait 7 days after treatment before tillage or moving.

Pampasgrass / Ice plant—Apply this product as a 1.5 to 2 percent growth. Thorough coverage is necessary for best control.

Phragmites-For partial control of phragmites in Florida and the counties of other states bordering the Gulf of Mexico, apply 5 quarts per acre as a broadcast spray or apply a 2 percent solution from hand-held equipment, in other areas of the U.S., apply 3 quarts per acre as a broadcast spray or apply a 1 percent solution from handheld equipment for partial control. For best results, treat during late summer or fall months or when plants are actively growing and in full bloom. Treatment before or after this stage may lead to reduced controt. Due to the dense nature of the vegetation, which may prevent good spray coverage or unevan stages of growth, repeat treatments may be necessary to maintain control. Visual control symptoms will be slow to develop.

Quackgrass-In Annual Cropping Systems, or in Pastures and Sods Followed by Deep Tillage: Apply 1 to 2 quarts of this product per acre. For the 1 quart rate, apply 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. For the 2 quart rate, apply in 10 to 40 gallons of water per acre. Do not tank mix with residual herbicides when using the 1 quart rate. Spray when quackgrass is 6 to 8 inches in height and actively growing. Do not till between harvest and fall applications or in fall or spring prior to spring application. Allow 3 or more days after application before tillage. In pastures or sods, for best results use a moldboard plow.

Quackgrass-Pasture or Sod or Other Noncrop Areas Where Deep Tillage is Not Planned Following Application: Apply 2 to 3 quarts in 10 to 40 gallons of water per acre. Spray when the quackgrass is greater than 8 inches tall and actively growing. Do not till between harvest and fall application or in fall or spring prior to spring application. Allow 3 or more days after application before tillage.

Redvine - For suppression, apply 24 fluid ounces of this product per acre at each of two applications 7 to 14 days apart or a single application of 2 quarts per acre. Apply recommended rates in 5 to 10 gallons of water per acre plus 0.5 to 1 percent nonionic surfactant by total volume. Apply in late September or early October to actively na clants, which are at least 18 inches tall and have been growleast I week before a killing frost. reast unage operation, make applications at

Reed, giant—For control of giant reed, apply a 2 percent solution of this product when plants are actively growing. Best results are oblained when applications are made in late summer to fall.

Smartweed, swamp—Apply 3 to 5 quarts of this product per acre when plants are actively growing and most have reached the early bud stage of growth. Allow 7 or more days after application before

Also for control, apply 16 fluid ounces of this product plus 0.5 pound active ingredient of 2.4-0 plus 0.5 to 1 percent nonionic surfactant by lotal volume in 3 to 10 gallons of water per acre in the lafe summer or fall. Apply when plants are actively growing and most have reached the early bud stage of growth. Allow 7 or more days after application

Spurge, leafy—For suppression, apply 16 fluid ounces of this product plus 0.5 pound active ingredient 2.4-D plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre in the late summer or fall. Apply when plants are actively glowing, if mowing has occurred prior to beatment, apply when most of the plants are 12 inches (all, Allow) or more days after application

Starthistle, yellow—Best results are obtained when applications are made during periods of active growth, including the rosette, bolting and early flower stages. For spray-to-wet applications, apply this product as a 2 percent solution. For broadcast applications, apply 2 quarts per acre in 10 to 40 gallons per acre of water carrier.

Sweet Potato, wild / Thistle, artichoke—Apply this product as a 2 percent solution using hand-held equipment. Apply to actively growing weeds that are at or beyond the bloom stage of growth. Repeat applications may be required. Allow the plant to reach the recommended stage of Browth before retreatment. Allow 7 or more days before

Thistle, Canada---Apply 2 to 3 quarts of this product per acre. Apply to actively growing thistles when most are at or beyond the bud stage of growth. After harvest, mowing or tillage in the late summer or fall. allow at least 4 weeks for initiation of active growth and rosette development prior to the application of this product. Fall treatments must be applied before a killing frost. Allow 3 or more days after application before tillage.

For suppression of Canada thistle, apply 1 quart per acre of this product, or 1 pint of this product plus 0.5 pound a.i. 2.4-D per acre, plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre in the late summer or fall after harvest, mowing or tillage. Allow rosette regrowth to a minimum of 6 inches in diameter before treating. Applications can be made as long as leaves are still green and plants are actively growing at the time of application. Allow 3 or more days after application before tillage.

Torpedograss--- Apply 4 to 5 quarts of this product per acre to provide partial control of torpedograss. Apply to actively growing torpedograss when most plants are at or beyond the seedhead stage of growth. Repeat applications will be required to maintain control. Fall treatments must be applied before frost. Allow 7 or more days after application before tillage.

Trumpetcreeper-For control, apply 2 quarts of this product per acre in 5 to 10 gallons of water per acre. Apply to actively growing plants in late September or October, which are at least 18 inches tall and have been growing 45 to 60 days since the last tillage operation. Make applications at least 1 week before a killing frost.

Other perennials listed on this label--- Apply 3 to 5 quarts of this product per acre. Apply when actively growing and most have reached early head or early but stage of growth. Allow 7 or more days after application before tillage.

When applied as recommended under the conditions described, this product CONTROLS or PARTIALLY CONTROLS the following woody Alder

Alnus spp.

Ash*

Fraxinus spp.

Aspen, quaking

Populus tremuloides

Bearmat (Bearclover)

Chamaebatia foliolosa

Beech

Fagus grandifolia

Birch

Betula spp. Blackberry

Rubus spp.

Blackgum

Myssa spp.

Bracken

Peridium spp.

Broom:

French

Cytisus monspessulanus

Scotch

Cytisus scoparius

Buckwheat, California*

Eriogonum fasciculatum

Cascara +

Rhamnus purshiana

Catsclaw*

Acacia greggi

Ceanathus*

Ceanothus spp.

Chamise

Adenostoma fasciculatum Cherry:

Bitter

Prunus emarginata

Black

Prunus seratina

Pig

Prunus pensylvanica

Coyote brush

Baccharis consanguinea

Creeper, Virginia*

Parthenocissus quinquelolia

Dewberry

Rubus trivialis

Dogwood*

Cornus spp.

Elderberry

Sambucus spp.

Elm* Maple: Red** Ulmus spp. Acer rubrum Eucalyptus Sugar Eucalyptus spp. Acer saccharum Gorse Ulex europaeus Vine* Acer circinatum Hasardia* Monkey Flower* Haplopappus squamosus Mimulus guttatus Hawthorn Crataegus spp. Oak: Black* Hazel Quercus velutina Corylus spp. Northern Pin Hickory* Quercus palustris Carya spp. Past Rolly, Florida/ Quercus stellata Brazilian Peppertree* Schinus terebinthifolius Red Quercus rubra **Honeysuckle** Southern Red Lonicera spp. Quercus falcata Hornbeam, American* White* Carpinus catoliniana Quercus alba Kadzo Persimman* Pueraria lobata Diospyros spp. Locust, black* Robinia pseudoacacia Pine Pinus spp. Madrone Paison Ivy Arbutus menziesii Rhus radicans Manzanita Poison Oak Arctostaphylos spp. Rhus toxicodendron Uniodendron tulipifera Sumac: Raspberry Poison* Rubus spp. Rhus vernix Redbud, eastern Smooth* Cercis canadensis Rhus glabra Rose, multiflora Winged* Rosa multiflora Rhus copallina Russian-olive Sweetgum Elaeagnus angustifolia Liquidambar styracillua Sage; black, white Swordlern* Salvia spp. Polystichum munitum Sagebrush, California Tallowtree, Chinese Artemisia californica Sapium sebilerum Salmonberry Tan Oak Rubus speciabilis Lithocarpus densiflorus Thimbleberry Salt cedar Tamarius spp. Rubus parvillorus Sassafras Tobacco, tree* Sassatras aibidum Nicotiana glauca Trumpetcreeper POOMUROS Oxydendrum arboreum Campsis radicans Waxmyrtle, southern* Myrica cerifera Willow

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Salix spp.

**See below for control or partial control instructions.

*Partial control

NOTE: If brush has been mowed or tilled or trees have been cut, do not treat until regrowth has reached the recommended stages of

Apply this product when plants are actively growing and, unless otherwise directed, after full leaf expansion. Use the higher rate for larger plants and/or dense areas of growth. On vines, use the higher rate for plants that have reached the woody stage of growth. Best results are obtained when application is made in late summer or fall after fruit formation.

In arid areas, best results are obtained when application is made in the spring to early summer when brush species are at high moisture content and are flowering.

Ensure thorough coverage when using hand-held equipment. Symptoms may not appear prior to frost or senescence with fall treatments.

Allow 7 or more days after application before tillage, mowing or removal. Repeat treatments may be necessary to control plants regenerating from underground parts or seed. Some autumn colors on undesirable deciduous species are acceptable provided no major leaf drop has occurred. Reduced performance may result if fall treatments are made following a frost.

See "DIRECTIONS FOR USE" and "MIXING, ADDITIVES and APPLICA-TION INSTRUCTIONS" sections of this label for labeled uses and specific application instructions.

Apply this product as follows to control or partially control the following woody brush and trees.

Alder / Dewberry / Honeysuckie / Post Oak / Raspberry-For control, apply 3 to 4 quarts per acre of this product as a broadcast spray or as a 1 to 1.5 percent solution with hand-held equipment.

Aspen, quaking / Cherry: bitter, black, pin / Hawthorn / Oak, southern red / Sweetgum / Trumpetcreeper—For control, apply 2 to 3 quarts of this product per acre as a broadcast spray or as a 1 to 1.5 percent solution with hand-held equipment.

Birch / Elderberry / Hazel / Salmonberry / Thimbleberry—For control, apply 2 quarts per acre of this product as a broadcast spray or as a 1 percent solution with hand-held equipment.

Blackberry—For control, apply 3 to 4 quarts per acre of this product as a broadcast spray, or I to 1.5 percent solution with hand-held equipment. Make application after plants have reached full leaf maturity. Best results are obtained when applications are made in late Summer or fall. After bernes have set or dropped in late fall, blackberry can be controlled by applying a 3/4 percent solution of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume with hand-held equipment. For control of blackberries after leaf drop and until killing frost or as long as stems are green, apply 3 to 4 quarts of this product in 10 to 40 gallons of water per acre.

Broom: French, Scotch—For control, apply a 1.5 to 2 percent solution with hand-held equipment.

Buckwheat, California / Hasardia / Monkey Flower / Tobacco, tree—For partial control of these species, apply a 1 to 2 percent solution of this product as a lottar spray with hand-held equipment. Thoraugh coverage of tollage is necessary for best results.

Catsclaw—For partial control apply as a 1 to 1.5 percent solution with hand-held equipment.

Coyote Brush—For control, apply a 1.5 to 2 percent solution with hand-held equipment when at least 50 percent of the new leaves are fully developed.

Eucalyptus—For control of eucalyptus resprouts, apply a 2 percent solution of this product with hand-held equipment when resprouts are 6 to 12 feet tall. Ensure complete coverage. Apply when plants are growing actively. Avoid application to drought-stressed plants.

Kudzu—For control, apply 4 quarts of this product per acre as a broadcast spray or as a 2 percent solution with hand-held equipment. Repeat applications will be required to maintain control.

Madrone resprouts-For suppression or partial control, apply a 2 percent solution of this product to resprouts less than 3 to 6 feet tall. Best results are obtained with spring/early summer treatments.

Maple, red-for control, apply as a 1 to 1.5 percent solution with hand-held equipment when at least 50 percent of the new leaves are fully developed. For partial control, apply 2 to 4 quarts of this product per acre as a broadcast spray.

Maple, sugar / Oak, northern pin / Oak, red---For control, apply as a 1 to 1.5 percent solution with hand-held equipment when at least 50 percent of the new leaves are fully developed.

Poison Ivy / Poison Oak-For control, apply 4 to 5 quarts of this product per acre as a broadcast spray or as a 2 percent solution with hand-held equipment. Repeat applications may be required to maintain control. Fall treatments must be applied before leaves lose green

Rose, multiflora—For control, apply 2 quarts of this product per acre as a broadcast spray or as a 1 percent solution with hand-held equipment. Treatments should be made prior to leaf deterioration by leaf-feeding insects.

Sage, black / Sagebrush, California / Chamise / Tallowtree, Chinese-For control of these species, apply a 1 percent solution of this product as a foliar spray with hand-held equipment. Thorough coverage of foliage is necessary for best results.

Tan oak resprouts---For suppression or partial control, apply a 2 percent solution of this product to resprouts less than 3 to 6 feet tall. Best results are obtained with fall applications.

William---For control, apply 3 quarts of this product per acre as a broadcast spray or as a 1 percent solution with hand-held equipment.

Other Woody Brush and Trees listed on this label-For partial control, apply 2 to 5 quarts of this product per acre as a broadcast spray or as a 1 to 2 percent solution with hand-held equipment.

NONCROP USES

See "GENERAL INFORMATION" and "MIXING, ADDITIVES and APPLI-CATION INSTRUCTIONS" sections of this label for essential product performance information and the following "NONCROP" sections for

EXTREME CARE MUST BE EXERCISED TO AVOID CONTACT OF SPRAY WITH FOLIAGE, GREEN STEMS, EXPOSED NON-WOODY ROOTS OR FRUIT OF CROPS, DESIRABLE TUREGRASSES, TREES, SHRUBS OR OTHER DESIRABLE VEGETATION SINCE SEVERE DAMAGE OR DESTRUCTION MAY RESULT.

Repeat treatments may be necessary to control weeds regenerating from underground parts or seeds.

Where repeat applications are necessary, do not exceed 10.6 quarts of this product per acre per year.

This product does not provide residual weed control. For subsequent weed control, follow a label-approved herbicide program.

Read and carefully observe the cautionary statements and all other information appearing on the labels of all herbicides used

INDUSTRIAL, RECREATIONAL AND PUBLIC AREAS

When applied as directed for "NONCROP USES," under conditions described, this product controls annual and perennial weeds listed on this label growing in areas such as airports, ditch banks, dry ditches. dry canals, fencerows, golf courses, highways, industrial plant sites, lumber yards, parking areas, parks, petroleum tank farms and pumping installations, pipelines, power and telephone rights-of-way, railtoads, toadsides, schools, storage areas, utility substations, other public areas and similar industrial or noncrop areas.

For specific rates of application and instructions for control of various annual and perennial weeds and woody brush and trees, see the "WEEDS CONTROLLED" section of this label.

This product may be applied with recirculating sprayers, shielded applicators, or wiper applicators in any noncrop site specified on this label. See the Selective Equipment part of "APPLICATION EQUIPMENT and TECHNIQUES" section of this label for information on proper use and calibration of this equipment.

TANK MIXTURES FOR INDUSTRIAL SITES AND FORESTRY SITE PREPARATIONS

RATTLER® plus OUSTIM

Use on industrial sites including airports, industrial plants, lumberyards, petroleum tank farms, pumping stations, railroads, roadsides, storage areas or other similar sites where bare ground is desired.

This tank mixture may also be used as a site preparation treatment for sites to be planted to jack pine, loblolly pine, red pine, slash pine and Virginia pine. When applied as directed for "NONCROP USES" under the conditions described, this product plus Oust provides control of annual weeds listed in the "WEEDS CONTROLLED" section of the label for this product and Dust, and control or partial control of the perennial weeds listed below.

Apply 1 to 2 quarts of this product with 2 to 4 ounces of Oust in 10 to 40 gallons of spray solution per acre as a broadcast spray to actively

This mixture may be applied by aerial equipment in site prep operations. When applied by air, use the recommended rates in 5 to 15 galions of spray solution per acre.

This product plus Dust tank mixtures may not be applied by air in California.

For control of annual weeds, use the lower rates of these products. For control of the listed perennial weeds, use the higher rates of both products. For partial control, use the lower rates.

Paspalum notatum

Johnsongrass**

8ermudagrass*

Sorghum halepense

Cynodon dachylon

Poorjoe**

Broomsedge

Diodia teres

Andropogon virginicus Back, curfy

Quackgrass Agropyron repens

Rumex crispus

Irumpetcreeper* Campsis radicans

Doglennel Eupatorium capillitorium

Vaseygrass Paspalum urvillei

Fescue, tall Festuca arundinacea

Vervain, blue Verbena hastata

*Suppression at the higher rates only.

**Control at the lower rates.

Read and carefully observe the cautionary statements and all other information appearing on the labels of all herbicides used.

TANK MIXTURES NONCROP SITES

When applied as a tank mixture, this product provides control of the emerged annual weeds and partial control of the emerged perennial weeds listed in this label. When applied as a tank mixture, the following residual herbicides will provide preemergence control of the weeds listed in the individual product labels.

53

57

90

RATTLER® plus DIURON

RATTLER plus KROVARTH I

RATTLER plus KROVAR II

RATTLER plus RONSTARTM 50WP

RATTLER plus SIMAZINE, PRINCEP CALIBERTH 90

RATTLER PLUS SIMAZINE 4L

RATTLER plus SIMAZINE 80W

RATTLER plus SURFLANTM 75W

RATTLER plus SURFLAN AS

When tank mixing with residual herbicides, add an agriculturally approved nominaire surfactant at 0.5 to 1 percent by volume of soray approved nomining surfacions at the first percent by volume of sorey solution. See the "MIXING, ADDITIVES and APPLICATION INSTRUC-TIONS" section of this label before preparing these tank mixtures.

Read and carefully observe the label claims, cautionary statements, recording to serve the label crawns, economicity scatterings, of all products used in these tank mixtures. Use according to the most restrictive label directions for each product in the mixture.

CONTROL OF EMERGED WEEDS

NOTE: For backpack sprayer and handgun applications, see the "HAND-HELD AND HIGH VOLUME EQUIPMENT" section for recom-

Annual Weeds - Apply I quart per acre of this product in these tank mixtures when weeds are less than 6 inches tall and 1.5 quarts per acre when weeds are more than 6 inches tall.

Perennial Weeds-For partial control of perennial weeds using these tank mixtures, apply 2 to 5 quarts per acre of this product. Follow the recommendations in the "WEEDS CONTROLLED" section of this label for stage of growth and rate of application for specific perennial weeds.

PREEMERGENCE WEED CONTROL

For preemergence weed control, refer to the individual product labels for specific nuncrop sites, rates, carrier volumes and precautionary

Mix only the quantity of spray solution which can be used during the same day. Do not allow these tank mixtures to stand overnight as this may result in reduced weed control.

FARMSTEAD WEED CONTROL

When applied as directed for "NONCROP USES", under conditions described, this product controls undesirable vegetation listed on this tabel around farmsteed building foundations, along and in fences, shelterbelts and for general nonselective farmstead weed control.

For specific rates of application and instructions for control of various annual and perennial weeds, see the 'WEEDS CONTROLLED' section of this label.

FARM DITCHES

This product will suppress perennial grasses along farm ditches. Apply this product at a rate of 6 to 8 fluid ounces per acre. Use 8 fluid ounces per acre when treating tall (coarse) fescue, fine fescue, orchardgrass or quackgrass covers. For best suppression of these species, add ammonium sulfate at a rate of 1.7 gounds per 10 gallons of spray solution. Use 6 fluid ounces per acre without ammonium sulfate when treating Kentucky bluegrass.

Apply treatments in 10 to 20 gallons of spray solution per acre to actively growing perennial grass covers. For best spray distribution and coverage, use flat fan nozzles.

Add a nonionic surfactant at a rate of 0.5 percent of the spray solution.

Where broadleaf weed control or suppression is desired, tank mix this product with an appropriate, labeled broadleaf weed herbicide.

CONSERVATION RESERVE PROGRAM (CRP ACRES)

This product can be used to control undesirable vegetation when rotating out of CRP acres or to suppress competitive growth and seed production of undesirable vegetation in CRP acres.

For specific rates of application for various annual and perennial weeds, see the "WEEDS CONTROLLED" section of this label.

CRP applications may be made with wiper applicators or conventional spray equipment.

For selective applications with broadcast spray equipment, apply 12 to 16 ounces per acre of this product in early spring before desirable CRP grasses, such as crested and tall wheatgrass, break dormancy and initiate green growth. Late fall applications can be made after desirable perennial grasses have reached dormancy. Some stunting of CRP perennial grasses will occur if applications are made when plants are not dormant.

HABITAT MANAGEMENT

This product is recommended for the restoration and/or maintenance of native habitats and in wildlife management areas. Apply as recommended in the "NONCROP USES" section of this label.

Habitat Restoration and Maintenance—When applied as directed, exotic and other undesirable vegetation may be controlled in habitat management areas. Applications can be made to allow recovery of native plant species, prior to planting desirable native species, and for similar broadspectrum vegetation control requirements in habitat

and the state of t

management areas. Spot treatments can be made to selectively remove unwanted plants for habitat maintenance and enhancement. For spot treatments, care should be exercised to keep spray off of desirable plants.

Wildlife Food Plots—This product may be used as a site preparation treatment prior to planting wildlife food plots. Any wildlife food species may be planted after applying this product, or native species may be allowed to repopulate the area. If tillage is needed to prepare a seedbed, wait 7 days after applying this product before tilling.

ORNAMENTALS, TREE NURSERIES AND CHRISTMAS TREES

THIS PRODUCT IS NOT RECOMMENDED FOR USE AS AN OVER-THE-TOP BROADCAST SPRAY IN ORNAMENTALS AND CHRISTMAS TREES.

NOTE: Desirable plants may be protected from the spray solution by using shields or coverings made of cardboard or other impermeable material.

When applied as instructed for the conditions described for "NON-CROP USES, this product controls undesirable vegetation listed on this label prior to planting, within and around greenhouses and shadehouses, and as a postdirected spray around established ornamentals and Christmas trees.

For specific rates of application and instructions for control of various annual and perennial weeds, see the "WEEDS CONTROLLED" section of this label.

Where repeat applications are necessary, do not exceed 10.6 quarts of this product per acre per year.

Site Preparation—Following preplant applications of this product, any ornamental, nursery species or Christmas tree species may be planted. Precautions should be taken to protect nuntarget plants during site preparation applications.

Greenhouse / Shadehouse Use—This product may be used to control weeds listed on this label which are growing in greenhouses. Desirable vegetation must not be present during application and air circulation fans must be turned off.

Postdirected Spray-Use as a postdirected spray around established woody ornamental species, nursery species or Christmas trees such as those listed below. Care must be exercised to avoid contact of spray, drift or mist with foliage of or green bank of established ornamental species.

Lilac

Arborvitae Thuja spp.

Syringa spp.

Azalea Rhodođendron spp. Magnolia Magnolia spp.

Bexweed Buxus spp. Maple

Crabapple Malus spp. Acer spp.

Oak Quercus spp.

Euonymus Euonymus spp. Privet

Abies sop.

Ligustrum spp. Pine

Pseudotsuga spp.

Pinus spp.

loioba

Spruce

Simmondsia chinensis

Picea spp.

Yew

Hollies

llex spp.

Taxus spp.

SILVICULTURAL SITES and RIGHTS-OF-WAY

NOTE: NOT RECOMMENDED FOR USE AS AN OVER-THE-TOP BROAD-CAST SPRAY IN SILVICULTURAL NURSERIES.

When applied as directed for "NONCROP USES" under conditions described, this product controls undesirable vegetation listed on this tabel. This product also suppresses or controls undesirable vegetation listed on this label when applied at recommended rates for release of established coniferous species listed on this label

For specific rates of application and instructions for control of various brush, annual and perennial weeds, see the "WEEDS CONTROLLED" section of this label. For specific rates of application for release of listed coniferous species, see the "CONIFER RELEASE" part of this

Where repeat applications are necessary, do not exceed 10.6 quarts of this product per acre per year.

Aerial Application—This product may be applied using aerial spray equipment for silvicultural site preparation, conifer release and rights-of-way treatments. See the "APPLICATION EQUIPMENT and TECHNIQUES" part of the "MIXING, ADDITIVES and APPLICATION INSTRUCTIONS" section of this tabel for information on how to apply this product by air.

OD NOT APPLY THIS PRODUCT BY AIR TO RIGHTS-OF-WAY SITES IN THE STATE OF CALIFORNIA.

To reduce the aerial application drift hazard to aquatic sites*, to nontarget sites or any site containing desirable vegetation, always maintain appropriate buffer zones. A buffer zone of the following minimum distances should be maintained:

 Helicopters using a Microtoil^{IM} boom, a Thru-Valve^{IM} boom (TVB-45), or equivalent drift control systems, should maintain at least a 50-foot buffer zone.

- · When using other aerial equipment:
- 1. Maintain at least a 75-foot buffer zone for applications using 2 quarts or less per acre of this product.
- 2. Maintain at least a 125-foot buffer zone for applications using more than 2 quarts per acre of this product.
- 3. Maintain at least a 400-foot buffer zone for applications on rights-of-way when applied from 75 feet or more above ground

These distances should be increased if conditions favoring drift exist.

*Aquatic sites include all lakes, ponds and streams used for significant domestic purposes or angling.

SITE PREPARATION

Following preplant applications of this product, any silvicultural species may be planted.

POSTDIRECTED SPRAY

In established silvicultural sites, use as a spray on the foliage of undestrable vegetation. Care must be exercised to avoid contact of spray, drift or mist with foliage or green bank of desirable species.

CONIFER RELEASE

For release, apply only where conifers have been established for more than one year. Vegetation should not be disturbed prior to treatment or until visual symptoms appear after treatment. Symptoms of treatment are slow to appear, especially in woody species treated in late fall. injury may occur to conifers treated for release, especially where spray patterns overlap or the higher rates are applied or when applications are made during periods of active conifer growth. Do not use additional surfactant with conifer release applications.

Applications must be made after formation of final conifer resting buds in the fall or prior to initial bud swelling in spring. Some autumn colors on undesirable deciduous species are acceptable provided no

major leaf drop has occurred. Use the following rates for conifer release to control or partially control the weeds listed in the "WEEDS CONTROLLED" section of this label.

For release of the following conifer species:

Douglas fir

Pines*

Pseudotsuga menziesii

Pinus spp

5огисе

Abies spp.

Picea spp.

Hemlock

Tsuga spp.

*Includes all species except eastern white pine, loblolly pine or slash

Apply 1.5 to 2 quarts of this product per acre except in Washington and Oregon, west of the crest of the Cascade Mountains. For spring treatments west of the crest of the Cascade Mountains, apply 1 quart of this product per acre before conifer bud swell for control of annual weeds. For fall treatments in Washington and Oregon, west of the crest of the Cascade Mountains, apply 1 to 1.5 quarts of this product per acre before any major leaf drop of deciduous species.

For release of western hemlock, apply 1 quart of this product per

For release of the following conifer species:

Loblolly gine Pinus taeda

Stash pine Pinus elliottii

Eastern white pine Pinus strobus

Late Season Application—Apply 1.5 to 2 quarts of this product in a minimum of 5 gallons of spray solution per acre during early autumn. Applications made prior to September 1 or when conditions are conducive to rapid growth of conifers will create the potential for increased injury in the form of tip and/or needle burn. Injury may

decrease with later applications. Some autumn colors are acceptable at time of application. Apply prior to trost or leaf drop of undesirable plants. Applications made according to label directions will release loblolly pine, eastern white pine and slash pine by reducing competition from the following species:

Ash

Fraginus Spp.

White Quercus alba

Cherry: Black

Persimmon Diospyros spp.

Prunus serotina Pin

Poplar, yellow Liriodendron tulipfera

Prunus pensylvanica

Sassatras

Elm

Sassafras albidum

Ulmus spp. Hawthorn

Sourwood

Crataegus spp.

Oxydendrum arboreum

Locust, black Robina pseudoacacia Sumac: Poison

Maple, red

Rhus vernix Smooth Rhus glabra

Acer rubra Oak:

Winged Rhus copallina

Black Quercus velutina

Sweetgum

Post Quercus stellata Liquidambar styraciflua

Southern Red

Quercus falcata

Apply only to those sites where woody brush and trees listed in this label constitute the majority of the undestrable species.

RATTLER® plus OUST TANK MIXTURES FOR CONIFER RELEASE FROM HERBACEOUS WEEDS

To release tobtolly pines from herbaceous weeds, tank mixtures of this product with Oust will provide control of annual weeds tisted in the "WEEDS CONTROLLED" section of this and the Oust label, and partial control of the perennial weeds listed below.

Apply 16 to 24 fluid ounces of this product with 2 to 4 ounces of Oust in 10 to 30 gallons of spray solution per acre. Make application to actively growing weeds as a broadcast spray over the top of the young

This product plus Oust tank mixtures may not be applied by air in

This tank mixture may be applied using aerial equipment. When applying by air, use the recommended rate in 5 to 15 gallons of spray solution per acre.

For control of annual weeds below 12 inches in height (or runner length on annual vines), use the lower rates of both products. Use the higher rates of both products when annual weeds are in more advanced stages of growth and approaching flower or seed formation.

Use the higher rates of both products for partial control of the following perennial weeds. Use the lower rates for suppression of growth.

Bahiagrass

Johnsongrass* Sorghum halepense

Paspalum notatum Broomsedge:

Poorjoe* Diodia teres

Andropogon virginicus Dock_ curly

Trumpetcreeper** Campsis radicans

Rumex crispus

Vaseygrass

Dogtennel Eupatorium capillilorium

Paspalum umillei

Fescue, tall Festuca arundinacea Vervain, blue Verbena hastata

- *Control at the higher rates
- **Suppression at the higher rates only.

Pine damage may occur or can be accentuated if treatment takes place when young treas are under stress from drought, flood water, insects or disease.

Read and observe the cautionary statements and all other information appearing on the labels of all herbicides used.

NOTE TO USER

This product must not be used in areas where adverse impact on federally designated endangered/threatened plant or aquatic species in their

Prior to making applications, the user of this product must determine that no such species are located in or immediately adjacent to the area to be treated.

CUT STUMP TREATMENTS

Woody vegetation may be controlled by treating freshly cut stumps of trees and resprouts with this product. Apply this product using suitable equipment to ensure coverage of the entire cambium. Cut vegetation close to the soil surface. Apply a 50 to 100 percent solution of this product to the freshly-cut surface immediately after cutting. Delays in application may result in reduced performance. For best results, applications should be made during periods of active growth and full leaf expansion.

When used according to directions for cut stump application, this product will CONTROL. PARTIALLY CONTROL or SUPPRESS many types of woody brush and tree species, some of which are listed below:

Alder

Madrone Arbutus menziesii

Alaus spp. Eucalyptus

0ak

Eucalyptus spp.

Quercus spp.

Reed, giant

Tan Oak

Lithocarpus densiflorus

Saltcedar Tamarisk spp. Willow Salix spp.

Sweetgum

Liquidambat styraciilua

■ INJECTION AND FRILL APPLICATIONS

Woody vegetation may be controlled by injection or frill application of this product. Apply this product using suitable equipment which must penetrate into the living tissue. Apply the equivalent of 1 ml of this product per each 2 to 3 inches of trunk diameter (DBH). This is best achieved by applying a 50 to 100 percent concentration of this material either to a continuous frill around the tree or as cuts evenly spaced around the tree below all branches. As tree diameter increases in size, better results are achieved by applying diluted material to a continuous frill or more closely spaced cuttings. Avoid application techniques that allow runoff to occur from frill or cut areas in species that exude sap freely after frills or cutting. In species such as this, make frill or cut at an oblique angle so as to produce a cupping effect and use undiluted material. For best results, application should be made during periods of active growth and after full leaf expansion.

This treatment WILL CONTROL the following woody species:

Oak

Quercus spp.

Sweetgum

Liquidambar styracillua

Poplar

Sycamore

Populus spp.

Platanus occidentalis

This treatment WILL SUPPRESS the following woody species:

Black gum

Hickory

Myssa sylvatica

Carya spp

Dogwood

Maple, red

Cornus spp.

Acer rubrum

TURFGRASSES AND GRASSES FOR SEED PRODUCTION

PREPLANT AND RENOVATION

When applied as directed for "NONCROP USES", under conditions described, this product controls most existing vegetation prior to the planning or renovation of either turigrasses or grass seed production areas.

For specific rates of application and instructions for control of various annual and perennial weeds, and woody brush and trees, see the "WEEDS CONTROLLED" section of this label.

For maximum control of existing vegetation, delay planting to determine if any regrowth from escaped underground plant parts occurs. Where repeat treatments are necessary, sufficient regrowth must be attained prior to application. For warm-season grasses, such as bermudagrass, summer or fall applications provide best control.

DO NOT DISTURB SOIL OR UNDERGROUND PLANT PARTS BEFORE TREATMENT. Tillage or renovation techniques such as vertical moving, coring or slicing should be delayed for 7 days after application to allow proper translocation into underground plant parts.

TURFGRASSES

Where existing vegetation is growing in a field or unmowed situation, apply this product to actively growing weeds at the stages of growth fisted in the "WEEDS CONTROLLED" section of this label.

Where existing vegetation is growing under mowed turigrass management, apply this product after omitting at least one regular mowing to allow sufficient growth for good interception of the spray.

Desirable turfgrasses may be planted following the above procedures.

GRASSES FOR SEED PRODUCTION

Apply this product to actively growing weeds at the stages of growth recommended in the "WEEDS CONTROLLED" section of this label

prior to planting or renovation of turf or forage grass areas grown for seed production.

DO NOT feed or graze treated areas within 8 weeks after application.

ANNUAL WEED CONTROL IN DORMANT BERMUDAGRASS AND BAHIAGRASS TURF

When applied as directed for "NONCROP USES" under the conditions described, this product will provide control or suppression of many winter annual weeds and tall fescue for effective release of dormant bermudagrass and bahiagrass turf. Refer to the rate table for Rattler alone under the "RELEASE OF BERMUDAGRASS and BAHIAGRASS" section of this label for recommended rates and volumes on the species to be suppressed or controlled. Treat only when turf is dormant and prior to spring greenup. Spot treatments or broadcast applications of this product in excess of 16 fluid dunces per acre may result in injury or delayed greenup in highly maintained turfgrass areas; i.e., golf courses, lawns, etc. DO NOT APPLY TANK MIXTURES of this product plus Oust in highly maintained turfgrass areas.

RELEASE OF BERMUDAGRASS OR BAHIAGRASS

NOTE: Use only in areas where bermudagrass or bahiagrass are desirable ground covers and where some temporary injury or discoloration can be tolerated. Use tank mixtures of this product plus Oust only on railroads, highways, utility plant sites, or other right-of-way areas.

When applied as directed for "NONCROP USES" under the conditions described, this product will provide control or suppression of many winter annual weeds and tall fescue for effective release of dormant bermudagrass or bahiagrass. This product may be tank-mixed with Oust as recommended for residual control. Make applications to dormant bermudagrass or bahiagrass. Tank mixtures of this product plus

Oust may delay greenup. To avoid delays in greenup and minimize injury, do not add more than 1 ounce per acre of Oust on bermudagrass or more than 0.5 ounce per acre on bahiagrass, or treat when these grasses are in a semi-dormant condition.

For best results on winter annuals, treat when plants are in an early growth stage (below 6 inches in height) after most have germinated. For best results on tall fescue, treat when fescue is in or beyond the 4- to 6-leaf stage.

WEEDS CONTROLLED

Rate recommendations for control or suppression of winter annuals and tall tescue are listed below:

Apply the recommended rates of this product alone or as a tank mixture in 10 to 25 gallons of water, plus 0.5 to 1 percent nonionic surfactant by total spray volume per acre.

For the best recommendation for the mixture of weeds within your geographic area, contact your Helena Company representative.

WEEDS CONTROLLED OR SUPPRESSED WITH RATTLER® ALDNE*

NOTE: C = Control S = Suppression

		Ratti	er® FL	FLUID OZ/ACRE					
WEED SPECIES	8	12	16	24	32	64			
Barley, little Hordeum pusilium	\$	С	С	C	C	С			
Bedstraw, catchweed Galium aparine	S	С	С	С	C	С			
Bluegrass, annual Poa annua	S	С	С	С	¢	С			
Chervi) Chaerophyllum tainturieri	 S	c	С	ε.	С	С			
Chickweed, common Stellaria media	S	С	C	C	С	¢			
Clover, crimson Trifolium incarnatum	•	S	S	С	C	С			
Clover, large hop Tuffolium campestre	•	\$	\$	С	C	c			
Fescue, tall Festuca arundinaceae	. •	•	٠	٠	S	S			
Geranium, Carolina Geranium carolinianum	•	•	\$	S	c	С			
Henbit Lamium amplexicaule	•	S	С	C	С	С			
Ryegrass Italian Lolium multiflorum	.•		s	С	С	С			
Speedwell, com Veronica arvensis	S	c	C	С	C	С			
letch, common Vicia sativa	•	•	S	С	С	Ċ			

^{*}These rates apply only to sites where an established competitive turi is present

WEEDS CONTROLLED OR SUPPRESSED WITH RATTLER® PLUS OUST*

NOTE: C = ControlS = Suppression

3	- 30ppie23ion			Rattler	(G) ÷	Ousl		
	Rattler (FL, OZ/A)	8	12	-12	16	16	12	16
WEED Species	OUST (OZ/A)	+ 1/4	+ 1/1_	+ 1/2	÷. 1/4	+ 1/2	† 1	÷ 1
Barley, lit	nle n pusitium	С	C	C	C	C	C	С
Bedstrav	, catchweed aparine	C	C	С	С	С	C	C
	ss, annual	\$	C	С	С	С	C	С
Chervil Chaero	phyllum tainturieri	C	С	С	C	С	С	С
Chickwe	ed, commen a media	S	С	С	С	С	С	С
Clover, o	crimson m incarnatum	S	\$	S	S	C	C	C
	large hop m campestre	•	•	S	\$	S	C	C
Fescue, Festuc	, tall :a arundinaceae	•	•	•		•		\$
	ım, Carolina ium carolinianum	•	S	S	С	C	С	C
Henbit Lamit	ım amplexicaule	•.	S			С	C	C
Ryegra Lohur	ss, Italian n <i>multiflorum</i>	•	S	S	С	С	С	С
							-	
	well, com nica arvensis	?	S (C (C (c c	; (С

^{*}These rates or mixtures of rates apply only to sites where an established competitive turf is present.

RELEASE OF ACTIVELY GROWING BERMUDAGRASS

When applied as directed, this product will aid in the release of bermudagrass by providing control of annual species listed in the "WEEDS CONTROLLED" section of this and the Oust label, and suppression or partial control of certain perennial weeds.

For control or suppression of those annual species listed on this label, use 1 to 3 pints of this product as a broadcast spray in 10 to 25 gallons of spray solution per acre. Use the lower rate when treating annual weeds below 6 inches in height (or length of runner in annual vines). Use the higher rate as weeds increase in size or as they approach flower or seedhead formation.

Use the higher rate of this product for partial control of the following perennial species. Use the lower rates for suppression of growth, For best results, see the "WEEDS CONTROLLED" section of this label for proper stage of growth.

Bahiagrass

Vetch, common Vicia sativa

Paspalum notatum

lohnsongrass*

Bluestem, silver

Sorghum halepense Trumpetcreeper**

Campsis radicans

Andropogon saccharoides

Fescue, tall

Vaseygrass

Festuca arundinacea

Paspalum urvillei

n

*Control at the higher rates.

**Suppression at higher rates only.

This product may be tank-mixed with Oust If tank-mixed, use no more than I to 2 pints per acre of this product with I to 2 ounces of Oust per acre.

Use the lower rates of both mixtures to control annual weeds below 6 inches in height (or runner length in annual vines) that are listed in the "WEEDS CONTROLLED" section of this booklet and the Oust label. Use the higher rates as annual weeds increase in size and approach the flower or seedhead stages.

Use the higher rates of this product to provide partial control of the following perennial weeds. Use the lower rates for suppression of growth.

Bahiagrass

Iohnsongrass*

Paspalum notatum

Sorghum halepense

Bluestem, silver Andropogun saccharoides Poorjae**

Diodia teres

Broomsedge Andropogon virginicus Trumpetcreeper* Campsis radicans

Dock, curly

Vaseygrass

Rumex crispus

Paspalum urvillei

Dogfennel

Vervain, blue

Eupatorium capillilorium

Verbena hastata

Fescue, tall

Festuca arundinacea

- *Suppression at higher rates only.
- **Control at the higher rates.

Use only on well-established bermudagrass. Bermudagrass injury may result from the treatment but regrowth will occur under moist conditions. Repeat applications in the same season are not recommended, since severe injury may result.

Read and carefully observe the cautionary statements and all other information appearing on the tabels of all herbicides used.

COOL SEASON TURF GROWTH REGULATION

When applied as directed, this product will suppress growth and seedhead development of listed turl species in industrial sites.

This product is recommended for management of coarse turl on roadside rights-of-way or other industrial areas. Do not use on high-quality turf or other areas where some turf color changes cannot be tolerated. Slight turf discoloration may occur but turf will regreen and regrow under moist conditions as effects of this product wear off.

Apply 4 to 6 fluid ounces of this product per acre alone or in a recommended tank mixture. Spray volumes of 10 to 40 gallons per acre are recommended.

When using this product, mix 2 quarts of a nonionic surfactant per 100 gallons of spray solution.

This product can be used for growth and seedhead suppression of:

Tall Fescue Smooth Brome

For best results, apply this product in a recommended tank mixture to actively growing turfgrasses after greenup in the spring of the year. For suppression of seedheads, applications must be made before boot-to-seedhead stage of development. Applications made from seedhead emergence until maturity may result in turf discoloration or injury.

After mowing or removal of seedheads, this product in a recommended tank mixture may also be used to suppress the growth of certain turigrasses. Allow furf to recover from stress caused by heat, drought or mowing before making applications. Applications made to but under stress may increase the potential for discoloration or injury.

ANNUAL GRASSES

For growth suppression of some annual grasses such as annual regrass, wild barley and wild oats, apply 3 to 4 fluid ounces of this product in 10 to 40 gallons of spray solution per acre. Applications should be made when annual grasses are actively growing and before the seedheads are in the boot stage of development. Treatments made after seedhead emergence may cause injury to the desired grasses.

TANK MIXTURES

For the following tank mixtures, consult each product label for weeds controlled and the correct stage of application. Do not treat turf under stress.

Tank mixtures plus 2,4-D Amine

For additional weed control benefits, up to I pound a.i. per acre of 2,4-B amine may be added to the following tank mixtures. Consult the label for 2,4-D amine for weeds controlled.

TALL FESCUE

Rattler plus Telar™

For suppression of tall fescue growth and seedheads, and control or partial control of some annual weeds, apply this tank mixture after greenup and prior to boot-to-seedhead stage of development. Use up to 0.5 ounce of Telar per acre.

This tank mixture can also be applied after mowing or removal of tall fescue seedheads for turf growth suppression. Make only one of the above applications per growing season.

Rattler plus Oust

For suppression of tall fescue growth and seedheads, and control or partial control of some annual weeds, apply this tank mixture after greenup and prior to boot-to-seedhead stage of development. Use up to 0.25 ounce of Oust per acre.

Rattler plus Escort^{ru}

This tank mixture can be applied after moving or removal of tall fescue seedheads for turf growth suppression and control or partial control of some annual weeds. Use up to 1/3 ounce of Escort per acre.

SMOOTH BROME

Rattler plus Oust

For suppression of smooth brome growth and seedheads and control or partial control of some annual weeds, apply this tank mixture after greenup and prior to boot-to-seedhead stage of development. Use up to 0.25 ounce of Oust per acre.

BAHIAGRASS SEEDHEAD AND VEGETATIVE SUPPRESSION

When applied as directed in the indicated noncrup areas (roadsides, airports, golf course roughs, and plant sites), this product will provide significant inhibition of seedhead emergence and will suppress vegetative growth for a period of approximately 45 days with single applications and approximately 120 days with sequential applications.

Apply this product 1 to 2 weeks after full greenup of bahiagrass or after the bahiagrass has been mowed to a uniform height of 3 to 4 inches. Applications must be made prior to seedhead emergence. Apply 6 fluid ounces per acre of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 10 to 25 gallons of water per acre.

Sequential applications of this groduct plus 0.5 to 1 percent nonionic surfactant by total spray volume may be made at approximately 45 day intervals to extend the period of seedhead and vegetative growth suppression. For continued seedhead suppression, sequential applications must be made prior to seedhead emergence. Apply no more than 2 sequential applications per year. As a first sequential application, apply 4 thuid ounces of this product per acre plus nonionic surfactant. A second sequential application of 2 to 4 thuid ounces per

acre plus romionic surfactant may be made approximately 45 days after the last application.

A tank mixture of this product plus Oust may be applied only on roadsides for seedhead inhibition and vegetative suppression. Apply 6 fluid ounces per acre of this product plus 0.25 ounce per acre of Oust, plus 0.5 to 1 percent nonionic surfactant by total spray volume 1 to 2 weeks following an initial spring mowing. When using this product plus Oust for suppression of bahiagrass, make only 1 application per year.

CROPPING SYSTEMS

When applied as directed for "CROPPING SYSTEMS", under the conditions described, this product controls annual and perennial weeds listed on this label, prior to the emergence of direct seeded crops or prior to transplanting of crops listed on this label.

See "GENERAL INFORMATION" and "MIXING, ADDITIVES and APPLICATION INSTRUCTIONS" sections of this label for essential product performance information.

See the following "CROPPING SYSTEMS" sections for specific recommended uses.

EXTREME CARE MUST BE EXERCISED TO AVOID CONTACT OF SPRAY WITH FOLIAGE, GREEN STEMS OR FRUIT OF DESIRABLE CROPS, PLANTS, TREES OR OTHER DESIRABLE VEGETATION SINCE SEVERE DAMAGE OR DESTRUCTION MAY RESULT.

Repeat treatments may be necessary to control weeds regenerating from underground parts or seed. Except as otherwise specified on this tabel, repeat treatments must be made before the crop emerges in accordance with the instructions of this label.

Except as otherwise specified in a crop section of this label, the combined total of all treatments must not exceed 8 quarts per acre of this product per year.

. For any crop not listed below, applications must be made at least 30 days prior to planting.

Do not harvest or feed treated vegelation for 8 weeks following application. Following spot treatment or selective equipment use, allow 14 days before grazing domestic livestock or harvesting forage grasses and legumes.

ROW CROPS CORN (ALL)* COTTON* PEANUTS SORGHUM (M

SORGHUM (MILO)*
SOYBEANS*
SUGARCANE*

CEREAL GRAINS
BARLEY*
BUCKWHEAT*
MILLET (PEARL, PROSO)*
OATS*

RICE**
RYE*
TRITICALE*
WHEAT (ALL)*
WILD RICE*

CITRUS
CALAMONDIN
CHIRONIA
CITRON
GRAPEFRUIT

KUMQUAT LEMON LIME

MANDARIN ORANGE Orange (ALL) PUMMELO
TANGELO
TANGERINE
TANGERS

TREE NUTS
ALMOND
BEECHNUT
BRAZIL NUT
BUTTERNUT

BUTTERNUT CASHEW CHESTNUT CHINQUAPIN FILBERT (HAZELNUT) HICKORY NUT MACADAMIA PECAN

PISTACHIO Walnut (Black, English)

VINE CROPS
GRAPES
KIWI FRUIT
IREE FRUITS
APPLE
APRICOTS

CHERRY (SWEET SOUR)

LOOUAT MAYHAW

NECTARINE OLIVE PEACH PEAR PLUM/PRUNE (ALL) QUINCE <u>VEGETABLES</u> ARTICHOXE, **JERUSALEM** ASPARAGUS* BEANS (ALL) **BEET GREENS** BEETS (RED, SUGAR) BROCCOLI (ALL) **BRUSSELS SPROUTS** CABBAGE (ALL) CABBAGE, CHINESE CANTALOUPE*** CARROT CAULIFLOWER CASABA MELON*** CELERIAC CELERY CHARD, SWISS CHICORY COLLARDS CRENSHAW MELON*** CUCUMBER*** EGGPLANT*** ENDIVE GARLIC*** GOURDS*** **GROUND CHERRY***** HONEYDEW MELON*** HONEY BALL MELON*** HORSERADISH KALE KOHLRABI LEEK LENTILS LETTUCE MANGO MELOX*** MELONS (ALL)*** MUSKMELOH*** **MUSTARD GREENS** OKRA ONION PARSLEY PARSNIPS PEAS (ALL) PEPPER (ALL)*** PERSIAN MELON*** POTATO (IRISH, SWEET) PUMPKIN*** RADISH RAPE GREENS RHUBARB RUTABAGA SHALLOT SPINACH (ALL) HZAUDZ (SUMMER, WINTER)*** TOMATILEO*** TOMATO*** TURNIP WATERCRESS*** WATERMELON*** YAMS

SMALL FRUITS AND BERRIES
BLACKBERRY
BLUEBERRY
BOYSENBERRY
CCANBERRY
CURRANT
OEWBERRY
ELDERBERRY
GOOSEBERRY
HUCKLEBERRY
LOGANBERRY
OLALLIEBERRY
RASPBERRY (BLACK, REO)

FORAGE CROPS AND LEGUMES
ALFALFA*
FORAGE GRASSES*
FORAGE LEGUMES*

IROPICAL CROPS
ACEROLA
ATEMOYA
AYOCADO
BANANA (PLANTAINS)
BREADFRUIT

CANISTEL Carambola CHERIMOYA
COCOA BEANS
COFFEE
DATES
FIGS
GENIP
GUAVA
JABOTICABA
JACKERUIT
LONGAR
LYCHEE
MANGO
PAPAYA
PASSION FRUIT

PAPAYA
PASSION FRUIT
PERSIMMONS
PINEAPPLE****
POMEGRANATE
SAPOOILLA
SAPOTE (BLACK, MAMEY
WHITE)

WHITE)
SOURSOP
SUGAR APPLE
TAMARIND
TEA

- *Spot treatments may be applied in these crops.
- **Do not treat rice fields or levees when the fields contain flood water.
- ***Apply only prior to planting. Allow at least 3 days between application and planting.
- ****Do not feed or graze treated pineapple forage following application.

† Use is restricted to direct seeded crops only.

When applying this product prior to transplanting crops into plastic mulch, care must be taken to remove residues of this product from the plastic prior to transplanting. Residues can be removed by 0.5 inch natural rainfall or by applying water via a sprinkler irrigation system.

Spot Treatment (Only those crops with "*" can be spot freated.) —
Applications in growing crops must be made prior to heading of small grains and milb, initial god set in soybeans, stiking of corn, or boll opening on cotton.

For forage grasses and forage legumes see "SPOT TREATMENT" in the "PASTURES" section of "CROPPING SYSTEMS" in this label.

For dilution and rates of application using boom or hand-held equipment, see "MIXING, ADDITIVES and APPLICATION INSTRUCTIONS" and "WEEDS CONTROLLED" sections of this label.

NOTE: FOR FORAGE GRASSES AND FORAGE LEGUMES, NO MORE THAN ONE-TENTH OF ANY ACRE SHOULD BE TREATED AT ONE TIME. FOR ALL OTHER CROPS, OO NOT TREAT MORE THAN TO PERCENT OF THE TOTAL FIELD AREA TO BE HARVESTED.

THE CROP RECEIVING SPRAY IN TREATED AREA WILL BE KILLED. TAKE CARE TO AVOID DRIFT OR SPRAY OUTSIDE TARGET AREA FOR THE SAME REASON.

Selective Equipment—This product may be applied through recirculating sgrayers, shielded applicators or wiper applicators in cotton and soybeans. Shielded and wiper applicators may also be used in tree crops and grapes. Wiper applicators may be used in wheat, rutabagas, forage grasses and forage legumes, including pasture sites and grain sorghum (milo).

See the "SELECTIVE EQUIPMENT" part of the "APPLICATION EQUIP-MENT and TECHNIQUES" section of this label for information on proper use and calibration of this equipment.

Allow at least the following time intervals between application and harvest

Cotton, Soybeans	. 7	days
Apples, Citrus, Pear	1	day

Atemoya, Avocado, Breadfruit, Canistel, Carambola, Cherry, Grapes, Oates, Jaboticaba, Jackfruit, Longan, Lychee, Passion Fruit, Persimmons, Rutabagas,

Sapodilla, Sapote, Soursop, Sugar Apple, Tamarind 14 days
Stone Fruit 17 days
Nut Creps, except pistachios 3 days

 Pistachio nuts
 21 days

 Wheat¹
 35 days

 Sorghum (milo)¹¹²
 40 days

1 Do not use roller applicators.

2 Do not leed or graze treated milo fooder. Do not ensite treated vegetation.

ASPARAGUS

When applied as directed for "CROPPING SYSTEMS" under the conditions described, this product controls weeds listed on this label in asparagus.

For specific rates of applications and instructions for control of various annual and perennial weeds, see the "WEEDS CONTROLLED" section of this label.

Prior to Crop Emergence—Apply this product prior to crop emergence for the control of emerged labeled annual and perennial weeds.

DD NOT APPLY WITHIN A WEEK BEFORE THE FIRST SPEARS EMERGE.

Spot Treatment—Apply this product immediately after cutting, but prior to the emergence of new spears. Do not treat more than 10 percent of the total field area to be harvested. Do not harvest within 5 days of treatment.

Postharvest — Apply this product after the last harvest and all spears have been removed. If spears are allowed to regrow, delay application until ferns have developed. Delayed treatments should be applied as directed or shielded spray in order to avoid contact of the spray with ferns, stems or spears. Direct contact of the spray with the asparagus may result in serious crop injury.

NOTE: Select and use recommended types of spray equipment for postemergence postharvest applications. A directed spray is any application where the spray pattern is aligned in such a way as to avoid direct contact of the spray with the crop. A shielded spray is any application where a physical barrier is positioned and maintained between the spray and the crop to prevent contact of spray with the crop.

BERRIES AND SMALL FRUITS

Wiper applicators may be used in cranberries in accordance with instructions in this section.

For other berries, apply as a preplant broadcost application, or as a directed spray or wiper application post-planting.

See "GENERAL INFORMATION" and "MIXING, ADDITIVES and APPLI-CATION INSTRUCTIONS" sections of this label for essential product performance information.

See the "SELECTIVE EQUIPMENT" part of the "APPLICATION EQUIPMENT and TECHNIQUES" section of this label for information on recommended use and calibration of this equipment.

Allow a minimum of 30 days between last application and harvest of cranberries. For other small fruits and berries, allow a minimum of 14 days between last application and harvest.

For Wick or other Wiper Applicators—Mix 1 gallon of this product in 4 gallons of water to grepare a 20 percent solution.

In severe infestations, reduce equipment ground speed to ensure that adequate amounts of this product are wiped on the weeds. A second treatment in the opposite direction may be beneficial.

Do not permit herbicide solution to contact desirable vegetation, including green shoots, canes or foliage.

CORN

Hooded Sprayers—This product may be used through hooded sprayers for weed control between the rows of corn. Only hooded sprayers that completely enclose the spray pattern may be used.

A hooded sprayer is a type of shielded applicator. The spray pettern is completely enclosed on the top and all 4 sides by a hood, thereby shielding the crop from the spray solution. This equipment must be set up and operated in a manner that avoids bouncing or raising the hoods off the ground in any way. If the hoods are raised, spray perticles may escape and-come into contact with the crop, causing damage or destruction of the crop. The spray hoods must be operated on the ground or skimming across the ground. Tractor speed must be adjusted to avoid bouncing of the spray hoods. Avoid operation on rough or sloping ground where the spray hoods might be raised off the ground.

When applying to corn that is grown on raised beds, ensure that the hood is designed to completely enclose the spray solution. If necessary, extend the front and rear flaps of the hoods to reach the ground in deep furrows.

Follow these requirements:

- The spray hoods must be operated on the ground or skimming across the ground.
- Do not apply more than 1 quart of this product per acre per application.
- Corn must be at least 12 inches fall, measured without extending leaves
- Leave at least an 8 inch untreated strip over the drill row. For example, if the crop row width is 38 inches, the maximum width of the spray hood should be 30 inches.

- · Maximum tractor speed: 5 mph.
- . Maximum wind speed: 10 mph.
- . Use low-drift nozzles.

Crop injury may occur when the foliage of treated weeds comes into direct contact with leaves of the crop. Do not apply this product when the leaves of the crop are growing in direct contact with weeds to be treated. Droplets, mist, foam or splatter of the herbicide solution may contact the crop and cause discoloration, stunting or destruction.

Contact of this product in any manner to any vegetation to which treatment in not intended may cause damage. Such damage shall be the sofe responsibility of the applicator.

For specific rates of application and instructions for control of various annual and perennial weeds, see the "WEEDS CONTROLLED" section of this label.

Do not graze or feed corn forage or fodder following applications of this product through hooded sprayers.

On not apply more than 3 quarts of this product per acre per year for hooded sprayer applications.

FALLOW AND REDUCED TILLAGE SYSTEMS

FOR AERIAL APPLICATION IN CALIFORNIA, REFER TO SUPPLEMENTAL LARF!

Use this product in fallow and reduced tillage systems for control of annual weeds prior to emergence of crops listed in this label. Refer to the "WEEDS CONTROLLED" section of this label for specific rates and instructions. This product may be applied using ground or aerial sqray equipment. See the "APPLICATION EQUIPMENT and TECHNIQUES" section of this label for instructions.

TANK MIXTURES

- RATTLER® plus BANVEL
 plus NONIONIC SURFACTANT
- RATTLER plus 2,4-D
 plus Honionic Surfactant
- RATTLER plus GOALT*

 plus NONIONIC SURFACTANT

DO NOT APPLY BANVEL OR 2.4-D TANK MIXTURES BY AIR IN CALIFORNIA.

Applications of 2,4-D or Banvel must be made at least 7 days prior to planting corn.

The addition of Banvel in a mixture with this product may provide short-term residual control of selected weed species. Some crop injury may occur if Banvel is applied within 45 days of planting. Refer to the Banvel and 2,4-D labels for cropping restrictions and other use instructions.

Rattler® plus Goal Tank Mixtures

This product alone or in tank mirtures with Goal plus 0.5 to 1 percent nomionic surfactant by total spray volume will provide control of those weeds listed below.

Make applications when weeds are actively growing and at the recommended stages of growth. Avoid spraying when weeds are subject to moisture stress, when dust is on the foliage or when straw canopy covers the weeds.

Rattler 12 fluid o	oz/acre	Rattler 16 fluid oz/acr	<u>e</u>
Wheat	18**	Annual grasses at left plus:	
Barley	12"	Ryegrass,	
Bluegrass,		annua)	6~
annual	6"	Chickweed	8"
Barnyardgrass	6"	Groundsel	6"
Rye	6"	Marestail	6"
196		Rocket, London	6"
		Shepherdspurse	6"
		Crabgrass	12"
		Johnsongrass.	
	•	seedling	12"
		Lambsquarters	12"
•		Oats, wild	12"
		Pigweed, redroot	121
		Mustards	12"

NOTE: Use 32 fluid ounces of this product per acre where heavy weed densities exist.

+	Rattler 12 fluid oz/acre		
Annual grasses above plu	15:	Annual weeds above pl	us:
Cheeseweed,		Cheeseweed,	
Rommoa	3"	common	5"
Chickweed	3"	Groundse)	6"
Groundset	3"	Chickweed	121
Rocket, Landon	6*	Rocket, London	12"
Shepherdspurse	6"	Shepherdspurse	12"

NOTE: Use 32 fluid ounces of this product per acre in mixtures with 2 to 4 fluid ounces of Goal per acre where heavy weed densities exist.

*Maximum height or length in inches.

**Use the higher rate of Goal when weeds approach maximum recommended height or stands are dense.

These recommended tank mixtures may be applied using ground or aerial spray equipment. Refer to the "WEEDS CONTROLLED" section of this label for specific rates and instructions.

ECOFARMING SYSTEMS

The recommendations made in this section are not registered for use in California.

The Ecofarming System consists of the following rotation: winter wheat, corn/sorghum, ecofallow.

Use the following tank mixtures for control of emerged annual weeds before planting corn or sorghum in the Ecofarming System.

	Rattler® at 18 to 20 fluid ounces per acre	
_	plus 2,4-D at 0.375 to 0.5 pound a.i. per acre	
	plus	_
	Atrazine at 0.75 to 1 pound a.i. per acre plus	Æ
•	Lasso® at 2.5 to 3 quarts per acre	•
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The above tank mixture should be applied in 28-0-0 or 32-0-0 liquid fertilizer carrier at 20 to 30 gallons per acre. The liquid lertilizer may be diluted with water to achieve the desired carrier volume.

WEEDS CONTROLLED - The following weeds, up to a maximum height of 4 inches, will be controlled:

Brome, downy Bromus tectorum Lettuce, prickly Lactuca serriola

Pigweed, redroot Amaranthus retrollexus

Bromus secalinus Foxtail, green

Thistle, Russian

Setaria viridis Fortail, yellow

Salsola kali Wheat volunteer

Setaria lutescens

Triticum aestivum

Kochia*

Kochia scoparia

*For improved control of kachia, add 4 fluid ounces per acre (0.125 pound a.i. per acre) of Banvel to the above tank mixture.

Risk of crop injury from 2.4-D or Banvel can be reduced by applying this treatment 7 to 14 days before planting.

Refer to the label booklet for Lasso® herbicide for preemergence weed control achieved by this tank mixture.

Refer to the specific product labels for crop rotation restrictions and cautionary statements for all products used in these tank mixtures.

AID TO TILLAGE

This product, when used in conjunction with preplant tillage practices, will provide control of downy brome, cheat, volunteer wheat, tansy mustard and foxtail. Apply 8 fluid ounces of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of

POSTHARVEST GRAIN SORGHUM, SORGHUM REGROWTH CONTROL

This product may be applied to grain sorghum (mile) stubble following harvest to suppress or control regrowth. Apply 1 quart of this product ger acre for control, or 1.5 pints of this product per acre for suppression. Use 0.5 percent nonionic surfactant in 3 to 10 gallons of spray solution per acre.

PASTURES

Apply this product prior to planting forage grasses and legumes.

Pasture or Hay Crop Renovation-When applied as a broadcast spray, this product controls the annual and perennial weeds listed in this label prior to planting forage grasses or legumes. Remove domestic livestock before application and wait 8 weeks after application before grazing or harvesting.

Spot Treatment—When applied as a spot treatment as recommended, this product controls annual and perennial weeds fisted in this label which are growing in pastures, forage grasses and forage legumes composed of bahiagrass, bermudagrass, bluegrass, brome, fescue, orchardgrass, ryegrass, timothy, wheatgrass, alfalfa or clover.

Wiper Application—When applied as directed, this product controls or suppresses the weeds listed under "WIPER APPLICATORS" in the "SELECTIVE EQUIPMENT" section of this label.

For spot treatment and wiper application, apply in areas where the movement of domestic fivestock can be controlled. No more than onetenth of any acre should be treated at one time. Further applications may be made in the same area at 30-day intervals. Remove domestic livestock before application and wait 14 days after application before grazing livestock or harvesting.

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tabel, and then use a tabet-approved, account week with conventional tillage. 93

SUGARCANE

When applied as directed for "CROPPING SYSTEMS", under the conditions described, this product controls those emerged annual and perennial weeds listed on this label growing in or around sugercane or in fields prior to the emergence of plant cane. This product will also control undesirable sugarcane.

NOTE: Where repeat treatments are necessary, do not exceed a total of 10.6 quarts of this product per acre per year. Do not apply to vegetation in or around ditches, canals or ponds containing water to be used for irrigation.

Broadcast Treatment—Apply this product in 10 to 40 gallons of water per acre on emerged weeds prior to the emergence of plant cane.

For specific rates of application and instructions for control of various annual and perennial weeds, see the "WEEDS CONTROLLED" section of this label

For removal of last stubble or ration cane, apply 4 to 5 quarts of this product in 10 to 40 gallons of water per acre to new growth having at least 7 or more new leaves. Allow 7 or more days after application before tillage.

Spot Treatment in or Around Sugarcane Fields—For dilution and rates of application using hand-held equipment, see "MIXING, ADDITIVES and APPLICATION INSTRUCTIONS" and "WEEDS CONTROLLED" sections of this label.

For control of volunteer or diseased sugarcane, make a 1 percent solution of this product in water and spray to wet the foliage of vegetation to be controlled.

NOTE: When spraying volunteer or diseased sugarcane, the plants should have at least 7 new leaves.

Avoid spray contact with healthy cane plants since severe damage or

Do not feed or graze treated sugarcane forage following application.

CONSERVATION TILLAGE. MINIMUM TILLAGE AND NO-TILL SYSTEMS CORN AND SOYBEANS Tank Mixtures

The recommendations made in this section are not registered for use in California.

When applied as recommended under the conditions described, the tank mixtures fisted in this section control many emerged weeds, and give preemergence control of many annual weeds where corn or soybeans will be planted directly into a cover crop, established sod or in previous crop residues.

Refer to specific product labels for crop rotation restrictions and cautionary statements of all products used in these tank mixtures. For mixing instructions, see the "MIXING, ADDITIVES and APPLICATION INSTRUCTIONS" section of this label.

Apply these tank mixtures in 10 to 20 gallons of water or 10 to 60 gallons of nitrogen solution per acre before, during or after planting. Do not apply these mixtures after crop emergence.

When tank mixing with residual herbicides, add an agriculturally approved nonionic surfactant at 0.5 to 1 percent by volume of spray solution. The addition of 1 to 2 percent dry ammonium sulfate by weight may increase the performance of this product.

NOTE: When using these tank mixtures, do not exceed 4 quarts of this

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instructions under "CONTROL OF PERENNIAL WEEDS" section of this label, and then use a label-approved, seedling weed-control program with conventional tillage.

CORN

For residual control, this product may be tank-mixed with the following herbicides or combination of herbicides:

LASSO/ALACHLOR ATRAZINE
LARIAT® CYANAZINE
BULLET® SIMAZINE
DUAL™ PROWL™
BICEP™ MICRO-TECH®
PARTNER®

For improved burndown, this product may be tank-mixed with 2,4-D or dicamba. Applications of 2,4-D or dicamba must be made at least 7 days prior to planting corn. See the "WEEDS CONTROLLED" section for specific rate information.

SOYBEANS

For residual control, this product may be tenk-mixed with the following herbicides or combination of herbicides:

LOROXTM PLUS CANOPYTM COMMANDTM PREVIEWIN PROWL DUAL GEMINI^M TURBO™ SCEP1ER!* LASSO/ALACHLOR FEXONE₁₇₅ SENCOR™ SQUADRONTM LINURON PURSUIT PLUSTM PURSUITTM MICRO-TECH® PARTNER

For improved burndown, this product may be tank-mixed with the following herbicides:

2,4-08

2,4-D*

*See the label for 2,4-D for intervals between application and planting.

CORN AND SOYBEANS

Annual Weeds—For difficult-to-control weeds such as fall panicum, barnyardgrass, crabgrass, shattercane and broadleaf signalgrass up to 2 inches tall, and Pennsylvania smartweed up to 6 inches tall, apply this product at 2 pints per acre in these tank mixtures. For other labeled annual weeds, apply 1 to 1.5 pints of this product per acre when weeds are less than 6 inches tall, and 2 to 3 pints when weeds are over 6 inches tall. For a complete list of annual weeds controlled, see the "WEEDS CONTROLLEO" section of this label.

Perennial Weeds—At normal application times in minimum tillage systems, perennial weeds may not be at the proper stage of growth for control. See the "WEEOS CONTROLLED" section of this label for the proper stage of growth for perennial weeds.

Use of 2 to 4 quarts of this product per acre in the lank mixtures mentioned above, under these conditions provides too kill and reduces competition from many emerged perennial grass and broadleaf weeds. For emerged perennial weeds controlled, see the "WEEDS CONTROLLED" section of this label.

To obtain the desired stage of growth, it may be necessary to apply this product alone in the late summer or fall and then follow with a label-approved, seedling weed-control program at planting.

USE OF THESE TANK MIXTURES FOR BERMUDAGRASS OR JOHN-SONGRASS CONTROL IN MINIMUM TILLAGE SYSTEMS IS NOT REC-OMMENDED. For bermudagrass control, follow the instructions under "CONTROL OF PERENNIAL WEEDS" section of this label and then use a label-approved, seedling weed-control program in a minimum tillage or conventional tillage system. For Johnsongrass control, follow instructions under "CONTROL OF PERENNIAL WEEDS" section of this label, and then use a label-approved, seedling weed-control program with conventional tillage.

PREHARVEST APPLICATIONS

When applied as directed under the conditions described, this product controls annual and perennial weeds listed on this tabel prior to the harvest of cotton, soybeans, grain serghum (mile), and wheat.

For specific rates and application instructions for control of various annual and perennial weeds, see the "WEEDS CONTROLLED" section of this label.

This product may be applied by both ground and aerial application equipment. DO NOT APPLY MORE THAN 1 QUART PER ACRE OF THIS PRODUCT BY AIR. See the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this tabel for instructions for ground and aerial applications.

NOTE: Do not apply to crops grown for seed. Reduction in germination or vigor may occur.

The use of this product for preharvest grain sorghum (mile) is not registered in California.

SOYBEANS

Apply after pods have set and lost all green color. Allow a minimum of 7 days between application and harvest of soybeans. Care should be taken to avoid excessive seed shatter loss due to ground application equipment.

Do not graze or harvest treated crop for fivestock feed within 25 days of last preharvest application.

DO NOT APPLY MORE THAN 6 QUARTS PER ACRE OF THIS PRODUCT FOR PREMARYEST APPLICATIONS.

COTTON

Breadcast Applications—This product may be applied using either aerial or ground spray equipment. For ground applications with broadcast equipment, apply this product in 10 to 20 gallons of water per acre. For aerial applications, apply this product in 3 to 10 gallons of water per acre.

This product provides weed control and cotton regrowth inhibition when applied prior to the harvest of cotton. Apply 1 to 2 quarts of this product in 3 to 10 gallons of water per acre for cotton regrowth inhibition. Do not apply more than 2 quarts of this product per acre for preharvest applications. THE USE OF ADDITIVES FOR PREHARVEST APPLICATION TO COTTON IS PROMISIFED.

This product may be lank mixed with OEFIM 6, Folex^{IM}, or Prep^{IM} to provide additional enhancement of cotton feat drop.

Allow a minimum of 7 days between application and harvest of cotton.

Apply after sufficient holls have developed to produce the desired yield of cotton. Applications made prior to this time could affect maximum yield potential.

Oo not feed or graze treated cotton forage or hay following preharvest applications.

GRAIN SORGHUM (MILO)

Make applications at 30% grain moisture or less and at least 7 days prior to harvest.

Apply up to 2 quarts of this product per acre.

WHEAT

Apply after the hard-dough stage of grain (30% or less grain moisture) and at least 7 days prior to harvest.

DO NOT APPLY MORE THAN 1 QUART PER ACRE OF THIS PRODUCT FOR PREHARVEST APPLICATIONS TO WHEAT.

TREE AND VINE CROPS

This product is recommended for weed control in established groves, vineyards, and orchards, or for site preparation prior to transplanting crops listed in this section. Applications may be made with boom equipment, COA, shielded sprayers, hand-held and high-volume wands, lances, orchard guns or with wiper applicator equipment, except as directed in this section. See the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label for specific information on use of equipment.

When applying this product, refer to the "WEEDS CONTROLLED" section of this label and to specific recommendations in this section for rates to be used.

NOTE

Repeat treatments may be necessary to control weeds originating from underground parts of untreated weeds or from seeds. This product does not provide residual weed control. For subsequent weed control, use repeated applications of this product. On not apply more than 10.6 quarts of this product per acre per year.

EXTREME CARE MUST BE EXERCISED TO AVOID CONTACT OF HERBI-CIDE SOLUTION, SPRAY, DRIFT OR MIST WITH FOLIAGE OR GREEN BARK OF TRUNK, BRANCHES, SUCKERS, FRUIT OR OTHER PARTS OF TREES OR VINES. CONTACT OF THIS PRODUCT WITH OTHER THAN MATURED BROWN BARK CAN RESULT IN SERIOUS CROP DAMAGE.

AVOID PAINTING OUT STUMPS WITH THIS PRODUCT AS INJURY RESULTING FROM ROOT GRAFTING MAY OCCUR IN ADJACENT TREES.

Reduced control may result when applications are made to annual or, perennial weeds that have been mowed, grazed or cut and have not been allowed to regrow to the recommended stage for treatment.

For specific rates of applications and instructions, see the "VIEEDS CONTROLLED" section of this label, and to specific recommendations which follow

MIDDLES MANAGEMENT

FOR ANNUAL WEEDS IN MIDDLES BETWEEN ROWS OF TREE AND VINE CROPS

For citrus crops, treat uniformly between trees.

RATTLERS

RATTLER plus GOAL

This product alone or in mixtures with Goal will control or suppress the annual weeds listed below.

Apply the recommended rates of this product, either alone or in mixtures with Goal, plus 0.5 to 1 percent nonionic surfactant by spray volume in 3 to 10 gattons of water per acre. Apply when weeds are actively growing and tess than 6 inches in height or diameter. If weeds are under drought stress, imgate prior to application. Reduced control may occur if weeds have been mowed prior to application. Up to 48 fluid ounces per acre of this product may be used to control weeds, which have been mowed, are stressed or are growing in dense populations.

WEED SPECIES	MAXIMUM HEIGHT/ DIAMETER (INCHES)	RATE PER ACRE RATTLER® GOAL (FLUID (FLUID OUNCES) OUNCES)
Barley Hordeum vulgare	6	8 —
Bluegrass, annual Poa annua		
Barnyardgrass Echinochloa crus-galli	6	12
Chickweed, common Stellana media	i 	
Red Maids Calandrinia ciliata		

	
MAXIMUM HEIGHT/ DIAMETER (INCHES)	RATE PER ACRE RATTLER® GOAL (FLUID (FLUID OUNCES) OUNCES)
6	16
	08
	16 to 32 + 4 to 16**
3	12 to 32 + 4 to 16
Б	16 to 32 + 4 to 16
	HEIGHT/ DIAMETER (INCHES) 6

Filaree* Erodium spp.	}
Horseweed/Marestail Conyza canadensis	
Nettle, stinging Urlica dioica	
Purseiane, common* Purtulaca oleracea	

^{*}Suppression only.

STRIPS

FOR ANNUAL AND PERENNIAL WEEDS IN STRIPS OF TREE AND VINE CROPS

TANK MIXTURES WITH RESIDUAL HERBICIDES

When applied as a tank mixture, this product provides control of the emerged annual weeds and control or suppression of emerged perennial weeds listed in this label. The following residual herbicides will provide preemergence control of those weeds listed in the individual product labels.

	RATTLER plus SIMAZINE 4L	
-	RATTLER plus SIMAZINE, Princep Caliber 90	•
		Ξ
	RATTLER plus KROVAR II	
-	RATTLER plus KROVAR I	
	RATTLER plus KARMEXT DF	
_	RATTLER® plus GOAL 2XL	-

^{**}The mixture of this product plus Goal is recommended when weeds are stressed or growing in dense populations.

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•	RATTLER plus SOLICAMIM 80DF	
	RATTLER plus SURFLAN AS	
	RATTLER plus SURFLAN 75W	
	RATTLER plus SIMAZINE (80W, or 4L, or PRINCEP CALIBER 90) plus SURFLAN (AS or 75W)	=
	RATTLER plus GDAL 2XL plus Surflan (AS or 75W)	•
•	RATTLER plus GOAL 2XL plus Simazine (80W. of 4L, or princep Caliber 90)	•
-	RATTLER plus GDAL 2XL plus SURFLAN (AS or 75W) plus SIMAZINE (80W, 4L, or PRINCEP CALIBER 90)	

Do not apply these tank mixtures in Puerto Rico.

When tank-mixing with residual herbicides, add an agriculturally approved nonionic surfactant at 0.5 to 1 percent by volume of spray solution.

Refer to the individual product labels for specific crops, rates, geographical restrictions and precautionary statements.

Read and carefully observe the label claims, cautionary statements, rates and all other information on the labels of all products.

RECOMMENDED RATES

Annual Weeds—Apply 1 to 5 quarts per acre of this product in these tank mixtures. Use rates at the higher end of the recommended range when weeds are stressed, growing in dense populations or are greater than 12 inches talf.

Perennial Weeds.—Apply 1 pint to 5 quarts per acre of this product in these tank mixtures to control or suppress perennial weeds. Follow the recommendations in the "WEEDS CONTROLLED" section of this tabel for stage of growth and application rates for specific perennial weeds.

■ RATTLER® plus GOAL plus SIMAZINE/SURFLAN

This product plus low rates of Goal in 3-way or 4-way mixtures with simazine and/or Surflan will provide postemergence control of the weeds listed below

Refer to the individual simazine and Surflan labels for preemergence rates, weeds controlled, precautionary statements and other important information.

Apply these tank mixtures in 3 to 40 gallons of water. Add 0.5 to 1 percent nonionic surfactant by total spray volume to the spray solution.

Apply 1 to 5 quarts per acre of this product plus 4 to 48 fluid ounces per acre of Goal plus labeled rates of simazine and/or Surflan to control the following weeds:

Barley, wild Hordeum leporinum

Biuegrass, annual Poa annua

Cheeseweed, common thalva spp.

Chickweed, common

Stellaria media Filaree* Erodium spp.

Fleabane, hairy Conyza bonariensis

Groundsel, common Senecio vulgaris Horseweed/Marestail Conyza canadensis

Nettle, stinging Urtica dioica

Pineappleweed

Matricaria matricariodes

Rocket, London Sisymbrium irio

Shepherdspurse Capsella bursa-pastoris

Sowthistle, annual Sonchus oleraceus

45

*Use a minimum of 1.5 quarts of this product in these mixtures.

NOTE: This recommendation does not preclude the use of Goal in these mixtures at higher, labeled rates for preemergence weed control.

PERENNIAL GRASS SUPPRESSION ORCHARD FLOORS

When applied as directed, this product will suppress vegetative growth as indicated below.

Bahiagrass

This product will provide significant inhibition of seedhead emergence and will suppress vegetative growth for a period of approximately 45 days with a single application and approximately 120 days with sequential applications. Apply this product 1 to 2 weeks after full green-up or after mowing to a uniform height of 3 to 4 inches. Applications must be made prior to seedhead emergence. Apply 6 lluid ounces of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 10 to 25 gallons of water per acre.

Sequential applications of this product plus nonionic surfactant may be made at approximately 45-day intervals to extend the period of seedhead and vegetative growth suppression. For continued seedhead suppression, sequential applications must be made prior to seedhead emergence. Apply no more than 2 sequential applications per year. As a first sequential application, apply 4 fluid ounces of this product plus nonionic surfactant. A second sequential application of 2 to 4 fluid ounces may be made approximately 45 days after the last application.

Bermudagrass

for burndown, apply 1 to 2 quarts of this groduct plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 20 gallons of water per acre. Use 1 quart of this product in 3 to 20 gallons of water per acre east of the Rocky Mountains. Use 1 to 2 quarts of this product in 3 to 10 gallons of water per acre west of the Rocky Mountains. Use this treatment only if reduction of the bermudagrass stand can be loterated. When burndown is required prior to harvest, allow at least 21 days to ensure sufficient time for burndown to occur.

Suppression only (east of the Rocky Mountains)—Apply 6 to 16 fluid ounces of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 20 gallons of water per acre no sooner than 1 to 2 weeks after full green-up. Mowing prior to application may occur provided a minimum height of 3 inches is maintained. Rates of 6 to 10 fluid ounces of this product plus nonionic surfactant should be used in shaded conditions or where a lesser degree of suppression is desired. Sequential applications may be made when regrowth occurs and bermudagrass injury and stand reduction can be tolerated.

Suppression only (west of the Rocky Mountains)—Apply 16 fluid ounces of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre to bermudagrass up to 6 inches in height and no sooner than 1 to 2 weeks after full green-up. Mowing prior to application may occur provided a minimum height of 3 inches is maintained. Sequential applications may be made when regrowth occurs and bermudagrass injury and stand reduction can be tolerated.

Cool Season Grass Covers

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For suppression of tall fescue, fine fescue, orchardgrass and quackgrass, apply 8 fluid ounces of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 10 to 20 gallons of water per acre. For best suppression, add ammonium sulfate to the spray solution at a rate of 2 percent by weight or 17 pounds per 100 gallons of spray solution.

For suppression of Kentucky bluegrass covers, apply 6 fluid ounces of this product plus 0.5 to 1 percent nonionic surfactant. Do not add ammonium sulfate.

For best results, mow cool-season grass covers in the spring to even their height and apply the recommended rate of this product 3 to 4 days after mowing. Avoid treating cool season grass covers under poor growing conditions, such as drought stress (drip irrigation), disease or insect damage.

LOW VOLUME APPLICATION (FLORIDA AND TEXAS)

For burndown or control of the weeds listed, apply the recommended rates of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 30 gallons of water per acre. Where weed foliage is dense, use 10 to 30 gallons of water per acre.

Annual Weeds

Goatweed—Apply 2 to 3 quarts per acre of this product plus 17 pounds of ammonium suffate per 100 gallons of water plus 0.5 to 1 percent nonionic surfactant by total spray volume. Apply in 20 to 30 gallons of water per acre when plants are actively growing. Use 2 quarts per acre when plants are less than 8 inches tall and 3 quarts per acre when plants are less than 8 inches tall and 3 quarts per acre when plants are greater than 8 inches tall and 3 quarts per acre when plants are greater than 8 inches tall, the addition of Krovar II or Karmex may improve control. Use labeled rates for these residual products.

Read and carefully observe the label claims, cautionary statements, rates and all other information on the Krovar II and Karmex labels.

Perennial Weeds

Apply when weeds are actively growing and at the growth stages listed in the "PERENNIAL WEEDS CONTROLLED" section of this label. It perennial weeds are mowed, allow weeds to regrow to the recommended stage of growth.

8 = Burndown C = Control Rattier® RATE PER ACRE				
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В	C	Ç	C	
S	•	PC	C	
	B B B	C = Con Rattier® R i qi 2 qts B C B B C	C = Control	

TREE CROPS

Citrus*****: calamondin, chironja, citron, grapefruit, kumquat, lemon, time, mandarin orange, orange, pummelo, tangelo, tangerine, tangors.

Nuts**: atmond, beechnut, Brazil nut, butternut, cashew, chestnuts, chinquapin, filbert, hazel nut, hickory nut, macadamia, pecan, pistachio, walnut.

Pome Fruit****: apple, loquat, mayhaw, pear, quince.

Stone Fruit***: apricots, cherries, nectarines, olives, peaches, olives/pruies

For cherries, any application equipment listed in this section may be used in all states.

For citron and olives, apply as a directed spray only.

Any application equipment listed in this section may be used in apricots, nectarines, peaches and plums/prunes growing in Arizona, California, Colorado, Idaho, Kansas, Kentucky, New Jersey, North Dakota, Oklahoma, Oregon, Texas, Utah and Washington, except for peaches grown in the states specified in the following paragraph. In all other states use wiper equipment only.

For PEACHES grown in Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina and Tennessee only, apply with a shielded boom sprayer or shielded wiper applicator, which prevents any contact of this product with the foliage or bark of trees. Apply no later than 90 days after first bloom. Applications made after this time may result in severe damage. Remove suckers and low-hanging limbs at least 10 days prior to application. Avoid applications near trees with recent pruning wounds or other mechanical injury. Apply only near trees which have been planted in the orchard for 2 or more years. EXTREME CARE MUST BE TAKEN TO ENSURE NO PART OF THE PEACH TREE IS CONTACTED.

Fropical Fruit: acerola*, atemoya*, avocado*, banana*****, breadfruit*, canistel*, carambola*, cherimoya*, cocoa beans*, coffee****, dates*, figs*, genip*, guava******, jaboticaba*, jackfruit*, longan*, lychee*, mango*, mayhaw*, papaya*****, passion fruit*, persimmons*, plantains****, pomegranate*, sapodilla*, sapote*, soursop*, sugar apple*, tamarind*, tea*, in coffee and banana, delay applications 3 months after transplanting to allow the new coffee or banana plant to become established.

NOTE:

- *Allow a minimum of 14 days between last application and harvest.
- **Allow a minimum of 3 days between last application and harvest of these crops, except pistachio nuts. For pistachio nuts allow a minimum of 21 days between last application and harvest.
- ***Allow a minimum of 17 days between last application and harvest.
- ** ** Allow a minimum of 28 days between last application and harvest.
- *****Allow a minimum of 1 day between last application and harvest.

VINE CROPS

Kiwi Fruit

Grapes: Any variety of table, wine or raisin grape may be treated with any equipment listed in this section.

Applications should not be made when green shoots, canes, or foliage are in the soray zona.

Allow a minimum of 14 days between last application and hervest. In the northeast and Great Lakes regions, applications must be made prior to the end of bloom stage of grapes to avoid injury.

*Bullet, Lasso, Micro-Tech, Partner, and Lanat are registered trademarks of Monsanto Company.

TMOust, Krovar, Escort, Telar, Canopy, Gemini, Lexone, Lorox Plus, Diuron, Preview and Karmex are trademarks of E.f. duPont de Nemours and Company.

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TMSurflan is a trademark of DowElanco Products Company.

**Banvel and Solicam are trademarks of Sandoz, Inc.

**Ronstar, Folex and Prep are trademarks of Rhone-Poulenc, Inc.

[™]Goal is a trademark of Rohm and Haas Company.

MSencor and Turbo are trademarks of Bayer AG.

^{TV}Prowl, Pursuit, Pursuit Plus, Scepter and Squadron are trademarks of American Cyanamid Company.

EMCommand is a trademark of FMC Corporation.

TMDEF is a trademark of Mobay Chemical Company.

**Microfoil is a trademark of Union Carbide Agricultural Products.

Parthru-Valve is a trademark of Waldrum Specialties, Inc.

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This product is protected by U.S. Patent No. 4,405,531. Other patents pending. No license granted under any non-U.S. patent(s).

EPA Reg. No. 524-445-5905

21150VI-1/53

In case of an emergency involving this product, Call Collect, day or night, (314) 694-4000.

Rattler is a registered trademark used under license.

© 1997

Manufactured for: Helena Chemical Co. Memphis, TN 38119 U.S.A. This product is protected by U.S. Patent No. 4,405,531. Other patents pending. No license granted under any non-U.S. patent(s).

EPA Reg. No. 524-445-5905

21150V1-1/53

In case of an emergency involving this product, Call Collect, day or night, (314) 694-4000.

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Manufactured for: Helena Chemical Co. Memphis, TN 38119 U.S.A.



United States Environmental Protection Agency Office of Pesticide Programs (H7505C) 401 M Street SW Washington, DC 20460

Notice of Supplemental Distribution of a Registered Pesticide Product

Instructions

After a registrant has obtained final registration for the basic product, the registrant may then supplementally distribute his/her product. One form must be submitted for each distributor product and must be signed by the distributor involved. The basic registration number and the distributor company number must be shown.

If a registrant has a potential distributor who does not have a company number assigned, she/he should have the distributor apply, on letterhead stationary, to the Registration Division to have a number assigned prior to submitting this form to the agency.

This Notice of Supplemental Distribution must be submitted by the basic registrant. The completed form must have the concurrence and signature of both the registrant and the distributor.

EPA Registration Number of Product

Distributor Company Number

524-445

5905

Note: Do not submit distributor product labels

Name of Registered Product (basic product name accepted by EPA)

Distributor Product Name

Roundup Herbicide

Rattler Herbicide

Name and Address of Distributor (Type; include ZIP code)

Helena Chemical Company 6075 Poplar Avenue, Suite 500 Memphis, Tennessee 38119

Read All Conditions Before Signing

- The distributor product must have the same composition as the basic product.
- 2. The distributor product must be manufactured and packaged by the same person who manufactures and packages the registered basic product.
- 3. The labeling for the distributor product must bear the same claims as the basic product, provided, however, that specific claims may be deleted if by doing so, no other changes to the label are necessary.
- 4. The product must remain in the manufacturer's unbroken container.
- The label must bear the EPA registration number of the basic product, followed by a hypen and the distributor's company number.
- 6. Distributor product labels must bear the name and address of the distributor qualified by such terms as "packed for...," distributed by..."; or sold by..." to show that the name is not that of the manufacturer.
- 7. All conditions of the basic registration apply equally to distributor products. It is the responsibility of the basic registrant to see that all distributor labeling is kept in compliance with requirements placed on the basic product.

Distributor

We intend to market our product under the Distributor Product Name specified above, subject to the conditions specified chilis Notice.

Signature and Title of Distributor

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- ¿Dieta

10/0/97

Registrant

I agree that the distributor named above may distribute and sell the Distributor Product specified above, subject to the conditions specified on this Notice.

Signature and Title of Bodin Ant

Managar, Registration

9/10/97

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EPA Form 8\$70-5 (Rev. 2-92) Previous editions are obsolete.

Paperwork Reduction Act Notice

The annual respondent burden for the Notice of Supplemental Distribution of a Registered Pesticide Product is estimated to average 15 minutes per response, including time for reviewing the instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the information. Send comments regarding this burden, to chief, Information Policy Branch, PM 223, U.S. Environmental Protection Agnecy, 401 M Street, S.W., Washington, DC 20460; and to Paperwork Reduction Project (OMB No. 2070-0044), Office of Management and Budget, Washington, DC 20503, Marked "Attention Desk Officer for EPA."

Monsanto

Monsanto Company Suite 1100 700 14th Street, N.W. Washington, D.C. 20005

January 14, 1998

Hand Delivered

Office of Pesticide Programs
Document Processing Center (Final Printed Labeling)
U.S. Environmental Protection Agency
Room 266A, Crystal Mall #2
1921 Jefferson Davis Highway
Arlington, VA 22202

Attention:

Mr. James A. Tompkins (7505C)

Team Leader (25)

Subject:

Mirage Herbicide (EPA Reg. No. 524-445-34704)

Submission of Final Printed Supplemental Labels

Aerial Application in Fresno County

Dear Mr. Tompkins:

On 10-Oct-97, Monsanto submitted to EPA proposed supplemental labeling for the above product using the Notification process. A label for aerial application of Roundup Herbicide (524-445) has already been approved, and this action was merely intended to extend this use to the alternate brand name "Mirage Herbicide". Five (5) copies of the Final Printed Label are enclosed for your records. It is identified by the Print Plate Number 21148V1-6 and is dated 29-Dec-97.

In the course of finalizing this label, quality assurance review discovered that an incorrect template had been used to produce the proposed labeling submitted to EPA on 10-Oct-97, so that it contained the CAUTION signal word rather than the proper WARNING wording as required on EPA Reg. No. 524-445. This error has been corrected in the Final Printed Labeling. Monsanto emphasizes that the incorrect labeling was not printed or distributed, and the error was confined solely to the draft text submitted to the Agency.

Mr. James A. Tompkins , 14-Jan-98 Page 2

A copy of the Roundup Herbicide supplemental label for Aerial Application in Fresno County is enclosed for your reference and comparison. It was approved by the Agency on 9-Dec-93 and was submitted as Final Printed Labeling on 28-Jan-94. The only text change for the Mirage Herbicide label involve changes related to the brand name, distributor name, company number, and their decision not to include a telephone contact number.

If you have any questions on this matter please feel free to contact me through Dr. Russell P. Schneider or directly at 314-694-1582.

Sincerely,

Stephen J. Wratten Manager, Registrations

cc:

R. P. Schneider

D. Fee-White

D. Rasmusson

C. Garner, Platte

Please read instructions o	n reverse before completing form.		Form Appr	oved. OMB_No. 20	070-0060.	Approval expires 05-31-98
\$EPA	United States			Registra Amendr Other		OPP Identifier Number 255265
Application for Pesticide - Section I						
1. Company/Product Number 524-445-34704			2. EPA Product Manager Mr. James Tompkins X None Restricted			
4. Company/Product (Name) Mirage® Herbicide			РМ# 25			
5. Name and Address of Applicant <i>Unclude ZIP Code)</i> Monsanto Company 700 14th Street, N.W., Suite 1100 Washington, DC 20005			6. Expedited Review. In accordance with FIFRA Section 3(c)(3) (b)(i), my product is similar or identical in composition and labeling to: EPA Reg. No			
Check if this is a new address			Product Name			
		Sectio	n - II		·	
Amendment - Explain below. Résubmission in response to Agency letter dated "Me Too" Application. Notification - Explain below.						
		. :			nes to	
Submission of revised final printed supplemental label for Mirage Herbicide. Aerial application in Fresno County, CA						
Section:- ill a temperature and site of the section						
1. Material This Product Will Se Packaged In:						
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Certification must be submitted	Unit Packaging wgt container	Package v		عبيان الاية	Other (S	pacify)
3. Location of Net Contents Information 4. Size(s) Retail Container Container Contain						
6. Manner in Which Label is Affixed to Product Lithograph Paper glued Stenciled to be accorded to the content of the content						
Section - IV: The large of the metal-off and the property of Section - IV: The large of the contract of the co						
1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)						
Name Dr. Russell P. Schneider Tid			gricultural Regulation (Telephone No. (Include Area Code) irector (202) - 783-2460			
Certification as a constant to the statements of the Application of the Certification of the						
2. Signature	├ ──	ide > Managery Registrationsのband for Proc (4月 (1964) - 1975) (
4. Typed Name Steph	5. Date J	January 14, 1998 AMY sylno estimates				

PAPERWORK REDUCTION ACT NOTICE and INSTRUCTIONS

PAPERWORK REDUCTION ACT NOTICE: Public reporting burden for this collection of information is estimated to average 0.85 hour per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other espect of this collection of information, including suggestions for reducing this burden, to Chief, Information Policy Branch, (2136), U.S. Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460.

INSTRUCTIONS: This form is to be used for all applications for new registration, and use reregistration, amendment, resubmission, to applications for notifications, final printed labeling, reregistration, etc. In order to process an application for a new registration submitted on this form, the following material must accompany the application:

- 1. Certification with Respect to Citation of Data (EPA Form 8570-29). [If not exampted by 40 CFR 152.81 (b) (4)];
- 2. Confidential Statement of Formula (EPA Form 8570-4);
- 3. Formulator's Examption Statement (EPA Form 8570-27);
- 4. Five copies of draft labeling:
- 5. Three copies of any date submitted;
- Authorization letter where applicable;
- Matrices where applicable.

Submission of Labeling - Labeling should first be submitted in the form of draft labels with all applications for new registration. Such draft labels may be in the form of typed label text on 8.5 x 11 inch paper for submission or a mockup of the proposed label. If prepared for mockup, it should be constructed in a way as to facilitate storage in an 8.5 x 11 inch hie. Mockup labels significantly smaller than 8.5 x 11 inches should be mounted on 8.5 x 11 inch paper for submission.

Submission of Data - Data submitted in support of this application must be submitted in accordance with PR Nouce 86-5.

SPECIFIC INSTRUCTIONS: Please read the instructions listed below before completing this application. First determine the type of registration action, listed in Block A, for which you are submitting this application. For applications submitted in connection with New Registration actions. Sections action, ested in Block A, for which you are submitting tres applications submitted in connection with amended reregistration actions, resubmissions, notifications, reregistrations, etc., Sections I, II, and IV must be completed by the applicant. Block A Check the appropriate action for which you are submitting this form.

SECTION ! - This section must be completed, as applicable, for all registration actions.

- 1. Company/Product Number Insert your Company Number, if one has been assigned by EPA. This number may have been assigned to you as a basic registrant, a distributor, or as an establishment. If your product is registered, insert the Product Number.
- EPA Product Manager If known, fill in the name and PM number of the EPA Product Manager.
- Proposed Classification Specify the proposed classification of this product.
- Product Name Enter the complete product name of this pesticide as it will appear on the label. The name must be specific to this product only. Duplication of names is not permitted among products of the same company. Do not include any brand name or company line designations: 🕒
- 5. Name and Address of Applicant The name of the firm or person and address shown in your application is the person or firm to whom the registration will be issued. If you are acting in behalf of another party, you must submit authorization from that party to act for them in registration matters. An applicant not residing in the United States must have en authorized agent residing in the United States to act for them iff all registration matters. The name and complete meiling address of such an agent must accompany this application. 20
- Expedited Review FIFRA section 3 (c) 3 (B) provides for expedited review of applications for registration, or amendments to existing registration: that are similar or identical to other pasticide products that are currently registered with the EPA. In order for your application to be eligible for expedited review, you must provide us with the EPA Registration Number and product name of the product you believe is similar to or identical to your product. The product must be similar or identical in both formulation and labeled uses.

SECTION II - This section must be completed for all applications submitted to amend the registration only of a currently registered product (Amendment), for a resubmission in response to an Agency letter, for notifications to the Agency, for the submission of final printed labeling; for reregistration and for any other action that pertains to a specific EPA-registered product. This section is not to be used for a new application for registration.

1. Subject of aubmission - Check the applicable block and provide the Agency letter date if appropriate. Provide a brief explanation of the purpose(s) for the submission, such as "the eddition of a site, pest or crop (specify)"; "amend the Confidential Statement of Formula by..."; "reregistration submission"; "general label revision of use directions,"... Attach a separate page if edditional space is needed.

SECTION III (Packaging and Container Information) - This Section must be completed for all applications submitted in connection with new The Control of the State of State Committee Co registration of applicable amendments.

- 1. Type of Packaging Check the appropriate block if your product will be packaged in the indicated packaging types. Indicate the size of the individual packets and number per retail container.
- 2. Type of Retail Container Indicate type of container in which product will be marketed.
- 3. Location of Net Contents Indicate the location of the net contents information for your product.
- Size(s) of Retail Container Specify the net contents of all retail containers for your product.
 Location of Use Directions Indicate the location of the use directions for your product.
- 6. Manner in which label is affixed to product Indicated the method product label is attached to retail container.

SECTION IV (Contact Point) - This Section must be completed for all applications for Registration actions, i.e., new products registration, EEE1 , 12 yazures 32 2 3 resubmission, "me-too," reregistration, etc.

- 1-5. Self-explanatory.
- 8. EPA Use Only.

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SUPPLEMENTAL LABELING

READ AND FOLLOW THE ENTIRE LABEL FOR ROUNDUP® HERBICIDE AND THE "FOR AERIAL APPLICATION IN CALIFORNIA ONLY" SUPPLEMENTAL LABEL BEFORE PROCEEDING WITH THE USE DIRECTIONS CONTAINED IN THIS SUPPLEMENTAL LABELING.

"Label" as used in this supplemental labeling refers to the label booklet for Roundup herbicide, the "FOR AERIAL APPLICATION IN CALIFORNIA ONLY" supplemental label, and this supplement.

Appr 12/9/93 (2)



(EPA Reg. No. 524-445)

FOR AERIAL APPLICATION IN FRESNO COUNTY. CA ONLY FROM FEBRUARY 15 THROUGH MARCH 31 ONLY.

FOR AERIAL APPLICATION OUTSIDE THESE DATES, REFER TO THE "FOR AERIAL APPLICATION IN CALIFORNIA ONLY" STATEWIDE SUPPLEMENTAL LABEL.

Keep out of reach of children. WARNING! AVISO!

In case of an emergency involving this product, Call Collect, day or night, (314) 694-4000.

Roundup* is a registered trademark of Monsanto Company.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in any manner inconsistent with its labeling.

This label must be in the possession of the user at the time of the herbicide application.

See the "GENERAL INFORMATION" and "MIXING, ADDITIVES AND APPLICATION INSTRUCTIONS' sections of the label booklet for essential product information.

See the "CROPPING SYSTEMS" section of the label booker for specific recommendations on the use of this product.

🗳 🛮 Applicable Area

This supplement only applies to the area contained inside the following boundaries within Fresho County, California only.

North: South: Fresho County line Fresho County line

East West State Highway 99 Fresno County line

GENERAL INFORMATION

Always read and follow the label directions and precautionary statements for all products used in, the aerial application. Observe the following directions to minimize offsite movement during aerial application of Roundup herbicide. Minimization of off-site movement is the responsibility of the grower, Pest Control Advisor, and aerial applicator.

Written Recommendations

A written recommendation MUST be submitted by or on behalf of the applicator to the Fresno County Agricultural Commissioner 24 hours prior to the application. This written recommendation MUST state the proximity of surrounding crops, and that conditions of each "hourtacturar's applicable product label(s) and this label have been satisfied.

Aerial Applicator Training and Equipment Aerial application of Roundup herbicide is limited to pilots who have successfully completed a Fresho County Agricultural Commissioner and California Department of Pesticide Regulation approved training program for serial application of herbicides. All aircraft must be inspected, critiqued in flight, and certified at a Fresno County Agricultural Commissioner approved fly-in. Test and calibrate spray equipment at intervals sufficient to insure that proper rates of herbicides and adjuvants are being applied during commercial Use. Applicator must document such calibrations and testing. Demonstration of performance at Fresho County Agricultural Commissioner approved "By-ins" constitutes such documentation, or other written records showing calculations

and measurements of Eight and spray parameters acceptable to the Fresho County Agricultural Commissioner.

Application at night - Do not apply this product by air earlier than 30 minutes prior to number and/or later than 30 minutes after surset without prior permission from the Fresno County Agricultural Commissioner.

To report in own or suspected misuse of Roundup herbicide, call 1-800-ROUNDUP.

Nor additional information on the proper serial application of Roundup herbicide, call (\$16) 784-1718.

Read the "LIMIT OF WARRANTY AND LIABILITY" in the label for Roundup herbicide before using this product. Those terms apply to this supplemental labeling and if those terms are not acceptable, rearm the product unopened at once.

MAP-3579-1/26/94

MONSANTO COMPANY 1994

468

MONSANTO COMPANY AGRICULTURAL PRODUCTS ST. LOUIS, MISSOURI 63167

SUPPLEMENTAL LABELING

READ AND FOLLOW THE ENTIRE LABEL FOR MIRAGE® HERBICIDE AND THE "FOR AERIAL APPLICATION IN CALIFORNIA ONLY" SUPPLEMENTAL LABEL BEFORE PROCEEDING WITH THE USE DIRECTIONS CONTAINED IN THIS SUPPLEMENTAL LABELING.

"Label" as used in this supplemental labeling refers to the label booklet for Mirage herbicide, the "FOR AERIAL APPLICATION IN CALIFORNIA ONLY" supplemental label, and this supplement.

MIRAGE

EPA Reg. No. 524-445-34704

[®]Mirage is a registered trademark used under license.

FOR AERIAL APPLICATION IN FRESNO COUNTY, CA ONLY From February 15 through March 31 only.

For aerial application outside these dates, refer to the "FOR AERIAL APPLICATION IN CALIFORNIA ONLY" statewide supplemental label.

Keep out of reach of children.

WARNING! AVISO!

In case of an emergency involving this product, Call Collect, day or night, (314) 694-4000.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in any manner inconsistent with its labeling.

This label must be in the possession of the user at the time of the herbicide application.

See the "GENERAL INFORMATION" and "MIXING, ADDITIVES AND APPLICATION INSTRUCTIONS" sections of the label booklet for essential product information.

See the "CROPPING SYSTEMS" section of the label booklet for specific recommendations on the use of this product.

Applicable Area

This supplement only applies to the area contained inside the following boundaries within Fresno County, California only.

North: Fresno County line South: Fresno County line East: State Highway 99 West: Fresno County line

General Information

Always read and follow the label directions and precautionary statements for all

products used in the aerial application.

Observe the following directions to minimize off-site movement during aerial application of Mirage® herbicide. Minimization of off-site movement is the responsibility of the grower, Pest Control Advisor, and aerial applicator.

Written Recommendations

A written recommendation MUST be submitted by or on behalf of the applicator to the Fresno County Agricultural Commissioner 24 hours prior to the application. This written recommendation MUST state the proximity of surrounding crops, and that conditions of each manufacturer's applicable product label(s) and this label have been satisfied.

Aerial Applicator Training and Equipment

Aerial application of Mirage herbicide is fimited to pilots who have successfully completed a Fresno County Agricultural Commissioner and California Department of Pesticide Regulation approved training program for aerial application of herbicides. All aircraft must be inspected, cri-

tiqued in flight, and certified at a Fresno Agricultural Commissioner County approved fly-in. Test and calibrate spray equipment at intervals sufficient to insure that proper rates of herbicides and adjuvants are being applied during commercial use. Applicator must document such calibrations and testing. Demonstration of performance Fresno Agricultural Commissioner approved "flyins constitutes such documentation, or other written records showing calculations and measurements of flight and spray parameters acceptable to the Fresno County Agricultural Commissioner.

Application at night - Do not apply this product by air earlier than 30 minutes prior to sunrise and/or later than 30 minutes after sunset without prior permission from the Fresno County Agricultural Commissioner.

For additional information on the proper aerial application of Mirage herbicide, call your nearest Platte Chemical Company representative.

Read the "LIMIT OF WARRANTY AND LIABILITY" in the label for Mirage herbicide before using this product. Those terms apply to this supplemental labeling and if those terms are not acceptable, return the product unopened at once.

© 1997 Manufactured for: Platte Chemical Company 419 18th St. P.O. Box 667 Greeley, Colorado 80532-0667 U.S.A.

12/29/97

21148V1-6

Environmental Protection Agency Washington Dc 20460 Application for Pesticide - Section I 1. CompanyProduct Number Subsanto 524-445 4. CompanyProduct (Name) **Subsanto 524-445 5. Name and Adverse of Application **More 100 **	Please read instructions on n	everse before completing	form.	Form App	roved, OMB No. 3	2070- 0 060	. Approvel expires 2-28-5
1. Cempany/Product Number 2. EPA Product Manager Mr. James A. Tompkins 3. Proposed Classification Mr. James A. Tompkins 2. Experiment Mr. James A. Tompkins 3. Proposed Classification Mr. James A. Tompkins 3. Proposed Classification Mr. James A. Tompkins 3. Experiment Mr. James A. Tompkins Mr. Jame	_	Unite Environmental P	d States rotection Age		Registra Amendr	tion	OPP Identifier Number
Mr. James A. Tompkins 4. CompanyProduct (Mannis) 1. None and Address of Applicant (Include ZIP Code) 1. Contect Point (Complete News directly below for identification 1. Pre Agricultural 1. Regulations Director 1. Contect Point (Complete News directly below for identification 1. Contect Point (Complete News directly below for identification 1. Contect Point (Complete News directly below for identification 1. Contect Point (Complete News directly below for identification of individual to be contected, if necessary, to process the application.) 1. Contect Point (Complete News directly below for identification of individual to be contected, if necessary, to process the application.) 1. Contect Point (Com		Ap	plication for F	Pesticide - Sect	ion I		
4. Company/Froduct (Wmill Be Peckaging Water Soluble Peckaging Yes	· • • • • • • • • • • • • • • • • • • •						
Monsanto Company (bili), my product is similar or identical promossion and labeling to: No. Product Name EPA Reg. No. OCT 2 6 1997	4. Company/Product (Name) Mirage Herbicio	le		РМ# 25			None Restricted
Resubmission in response to Agency letter dated	Monsanto Company Suite 1100 700 14th Street,	, NW		(b)(i), my product is to: EPA Reg. No Product Name _			
Resubmission in response to Agency letter dated			Sec	tion - II			<u> </u>
Extension of Aerial Supplemental for Fresno County previously approved on 524-445 to this net Distributor Supplemental Brandname. 524-445-34704 Section - III	Resubmission in respo	onse to Agency letter dat	ed	Agency lette	or dated pplication.	e to	· · · · · · · · · · · · · · · · · · ·
1. Material This Product Will Be Peckaged In: Child-Resistant Packaging	Extension of Aeri Distributor Suppl	ial Supplemental Lemental Brandn	ame. for 52	24-445- 34 	704	on 324	-445 to this new
Child-Resistant Packaging	1 Managini Thin Dendune Mill	Be Bestered In	Sect	1011 - 111			
Label Container Container Container Container Container Contact Point I Complete items directly below for identification of individual to be contacted, if necessary, to process this application.) Name Dr. Russell P. Schneider Certification I certify that the stetements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading stetement may be punishable by fine or imprisonment or Catalogua Companying product On Labeling accompanying product Other Paper glued Section - IV Telephone No. (Include Area Code) 202–383–2460 Certification I certify that the stetements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading stetement may be punishable by fine or imprisonment or (Stamped)	Child-Resistant Packaging Yes* No Certification must	Unit Packeging Yes No If "Yes"	lo. per If "Yes	Yes No " No. par		Metal Plastic Gless Paper	pecify)
6. Manner in Which Label is Affixed to Product Contest Point Complete items directly below for identification of individual to be contacted, if necessary, to process this application.) Name			Size(s) Retail Contail:	ner	On Labe	1	.3
1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.) Name Dr. Russell P. Schneider Certification I certify that the statements I have made on this form and elf attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law. Telephone No. (Include Area Code) 202–383–2460 6. Duta Application Received (Stamped)			Paper glued	Other			
Name Dr. Russell P. Schneider Certification I centify that the statements I have made on this form and all attachments thereto are true, accurate and complate. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law. Tatephone No. (Include Area Code) 202–383–2460 6. Duta Application Received (Stamped)		and the second of the second o	Sect	ion - IV			* * * * * * * * * * * * * * * * * * * *
Dr. Russell P. Schneider Regulations Director 202-383-2460 Certification certify that the stetements have made on this form and all attachments thereto are true, accurate and complate. Stamped) acknowledge that any knowingly false or misleading stetement may be punishable by fine or imprisonment or both under applicable law.	1. Contact Point Complete	items directly below for i	dentification of indivi	dual to be contacted,	if necessary, to pr	ocess this	application.)
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	l ackrib wiedge that any	y knowingly falsa or misli	s form and ell attach	ments thereto ere true y be punishable by find	, accurate and co e or imprisonment	mplate. or	Roceived (Stamped)*****

4. Typed Name

Stephen J. Wratten

Manager, Registrations

5. Date

10/10/97

PAPERWORK REDUCTION ACT NOTICE and INSTRUCTIONS

PAPERWORK REDUCTION ACT NOTICE: Public reporting burden for this collection of information is estimated to average 0.85 l response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, incl suggestions for reducing this burden, to Chief, Information Policy Branch, (2136), U.S. Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460; and to the Office of Information and Regulatory Affairs, Office of Management and Budger, Washington, DC 20503.

INSTRUCTIONS: This form is to be used for all applications for new registration, and use reregistration, amendment, resubmission, to applic for notifications, final printed labeling, reregistration, etc. In order to process an application for a new registration submitted on this form, the following material must accompany the application:

- 1. Certification with Respect to Citation of Data (EPA Form 8570-29). Ilf not exempted by 40 CFR 152.81 (b) (4));
- 2. Confidential Statement of Formula (EPA Form 8570-4); 3. Formulator's Exemption Statement (EPA Form 8570-27);
- 4. Five copies of draft labeling;
- 5. Three copies of any data submitted;
- Authorization letter where applicable;
- 7. Matrices where applicable.

Submission of Labeling - Labeling should first be submitted in the form of draft labels with all epplications for new registration. Such draft labels (in the form of typed label text on 8.5 x 11 inch paper for submission or a mockup of the proposed label. If prepared for mockup, it should be constructed in a way as to facilitate storage in an 8.5 x 11 inch file. Mockup labels significantly smaller than 8.5 x 11 inches should be mounted or x 11 inch paper for submission.

Submission of Data - Data submitted in support of this application must be submitted in accordance with PR Notice 86-5.

SPECIFIC INSTRUCTIONS: Please read the instructions listed below before completing this application. First determine the type of registral action, listed in Block A, for which you are submitting this application. For applications submitted in connection with New Registration actions, Se ا يا ايا الله and IV must be completed by the applicant. For applications submitted in connection with amended reregistration actions, resubmissions, 🕬 🗀 notifications, reregistrations, etc., Sections I, II, and IV must be completed by the applicant. Block A - Check the appropriate action for which you are submitting this form.

化过程性 网络多种子女 SECTION I: This section must be completed, as applicable, for all registration actions.

- Company/Product Number Insert your Company Number, if one has been assigned by EPA. This number may have been assigned to you as a basic registrant, a distributor, or as an establishment. If your product is registered, insert the Product Number.
- EPA Product Manager If known, fill in the name and PM number of the EPA Product Manager.
- Proposed Classification Specify the proposed classification of this product.
- Product Name Enter the complete product name of this pesticide as it will appear on the label. The name must be specific to this product only Duplication of names is not permitted among products of the same company. Do not include any brand name or company line designations.
- 5. Name and Address of Applicant The name of the firm or person and address shown in your application is the person or firm to whom the 🚟 registration will be issued. If you are acting in behalf of enother party, you must submit authorization from that party to act for them in registra matters. An applicant not residing in the United States must have an authorized agent residing in the United States to act for them in 📲 📑 registration matters. The name and complete mailing address of such an agent must accompany this application.
- 6. Expedited Review FIFRA section 3 (c) 3 (B) provides for expedited review of applications for registration, or emendments to existing registratio that are similar or identical to other pesticide products that are currently registered with the EPA. In order for your application to be eligible for expedited review, you must provide us with the EPA Registration Number and product name of the product you believe is similar to or identical t your product. The product must be similar or identical in both formulation and labeled uses.

SECTION II - This section must be completed for all applications submitted to amend the registration only of a currently registered product (Amandment), for a resubmission in response to an Agency letter, for notifications to the Agency, for the submission of final printed labeling, for.... reregistration and for any other action that pertains to a specific EPA-registered product. This section is not to be used for a new application for re-

1. Subject of submission - Check the applicable block and provide the Agency letter date if appropriate. Provide a brief explanation of the purpose(

1.0

for the submission, such as "the addition of a site, past or crop (specify)"; "amend the Confidential Statement of Formula by..."; "reregistration submission"; "general label revision of use directions." Attach a separate page if additional space is needed. RELEVANT CHEROSCOPE STREET

SECTION III (Packaging and Container Information) - This Section must be completed for all applications submitted in connection with new registration or applicable emendments.

- 1. Type of Packaging Check the appropriate block if your product will be packaged in the indicated packaging types. Indicate the size of the individual packets and number per retail container.
- Type of Retail Containur Indicate type of container in which product will be marketed.
- Location of Net Contents Indicate the location of the net contents information for your product.
- 4. Size of Retail Container Specify the net contents of all retail containers for your product.
- Ecception of Use Directions Indicate the location of the use directions for your product.
- 6. Manher in Which label is affixed to product Indicated the method product label is attached to retail container.

SECTION IV (Contact Point) - This Section must be completed for all applications for Registration actions) resubinission, "me-too," reregistration, etc.

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EPA Use Only.

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Monsanto

Monsanto Company Suite 1100 700 14th Street, N.W. --Washington, D.C. 20005

October 10, 1997

Hand Delivered

Office of Pesticide Programs
Document Processing Center (NOTIF)
U.S. Environmental Protection Agency
Room 266A, Crystal Mall #2
1921 Jefferson Davis Highway
Arlington, VA 22202

Attention:

Mr. James A. Tompkins (7505C)

Team Leader (25)

Subject:

Mirage® Herbicide: EPA Reg. No. 524-445-34704

Supplemental Labeling for Aerial Application in Fresno County, CA.

Dear Mr. Tompkins:

In an accompanying letter, Monsanto has requested that the Agency grant a Distributor Supplemental registration allowing Platte Chemical Company to distribute "Mirage Herbicide", a new brand name for EPA Registration Number 524-445.

In order to allow applications of Mirage Herbicide by air in Fresno County, California, as referenced in the booklet labeling, Monsanto wishes to extend the aerial supplemental label previously approved for Roundup Herbicide on the same 524-445 EPA Registration Number to Mirage. We enclose five (5) copies of the new supplemental label and a completed form 8570-1 for your records.

If you have any questions on this matter please feel free to contact me through Dr. Russell P. Schneider or directly at 314-694-1582.

Sincerely

Stephen J. Wratten Manager, Registrations

R. P. Schneider

D. Fee-White

D. Rassmusson

Monsanto

Monsanto Company Suite 1100 700 14th Street, N.W. Washington, D.C. 20005

January 14, 1998

Hand Delivered

Office of Pesticide Programs
Document Processing Center (Final Printed Labeling)
U.S. Environmental Protection Agency
Room 266A, Crystal Mall #2
1921 Jefferson Davis Highway
Arlington, VA 22202

Attention:

Mr. James A. Tompkins (7505C)

Team Leader (25)

Subject:

Mirage Herbicide (EPA Reg. No. 524-445-34704)

Submission of Final Printed Supplemental Labels

Aerial Application in California

Dear Mr. Tompkins:

On 10-Oct-97, Monsanto submitted to EPA proposed supplemental labeling for the above product using the Notification process. A label for aerial application of Roundup Herbicide (524-445) has already been approved, and this action was merely intended to extend this use to the alternate brand name "Mirage Herbicide". Five (5) copies of the Final Printed Label are enclosed for your records. It is identified by the Print Plate Number 21148V1-5 and is dated 22-Dec-97.

In the course of finalizing this label, quality assurance review discovered that an incorrect template had been used to produce the proposed labeling submitted to EPA on 10-Oct-97, so that it contained the CAUTION signal word rather than the proper WARNING wording as required on EPA Reg. No. 524-445. This error has been corrected in the Final Printed Labeling. Monsanto emphasizes that the incorrect labeling was not printed or distributed, and the error was confined solely to the draft text submitted to the Agency.

Mr. James A. Tompkins 14-Jan-98 Page 2

A copy of the Roundup Herbicide supplemental label for Aerial Application California is enclosed for your reference and comparison. It was originally approved by the Agency on 18-Mar-91 and the present version was submitted as Final Printed Labeling on 18-Mar-94. The only text change for the Mirage Herbicide label involve changes related to the brand name, distributor name, company number, and their decision not to include a telephone contact number.

If you have any questions on this matter please feel free to contact me through Dr. Russell P. Schneider or directly at 314-694-1582.

Sincerely,

Stephen J. Wratten

Manager, Registrations

cc:

R. P. Schneider

D. Fee-White

D. Rasmusson

C. Garner, Platte

Please read instructions on reverse before completing form.	Form Appr	roved. OMB No. 2070-0060	O. Approvel expires 05-31-98
United States Environmental Protecti Washington, DC 20	on Agency	Registration Amendment	OPP Identifier Number
		X Other	600604
Applicati	on for Pesticide - Sec		:_
1. Company/Product Number 524-445-34704	2. EPA Product Man Mr. James	Tompkins	roposed Classification
4. Company/Product (Name) Mirage® Herbicide	PM# 25	J L-	Jaoine L. Massiana
5. Name and Address of Applicant (Include ZIP Code) Monsanto Company 700 14th Street, N.W., Suite 1100 Washington, DC 20005 Check if this is a new address	(b)(i), my product (b) to: EPA Reg. No	view. In accordance with is similar or identical in co	
	Product Name _ Section - II		
Amendment - Explain below. Resubmission in response to Agency latter dated Notification - Explain below.	Agency lett	d labels in response to ter deted Application.	· · · · · · · · · · · · · · · · · · ·
Explanation: Use additional page(s) if necessary. (For section	a Land Species II)		
Submission of revised final print Aerial application in California.	• • • • • • • • • • • • • • • • • • • •	el for Mirage Herb	e de la companya de l
	Section - III		Proposition 1997
Material This Product Will Be Packaged In:		T	- A-5
Child-Resistant Packaging Yes* No * Certification must be submitted Unit Packaging Yes No. per Container	Water Soluble Packaging Yes No If "Yes" Package wgt Contained		to a production of the second
3. Location of Net Contents Information 4. Size(s) Re	tail Container	5. Location of Label Directi	ons
Label Container			mpanying product Sweets
Manner in Which Label is Affixed to Product Paper Stend Stend	greph Other righted cifed .	F	normanase :
	Section - IV		in a religion
1. Contact Point (Complete items directly below for identification	on of individual to be contacted,	if necessary, to process this	s application.)
Name Dr. Russell P. Schneider	Title Agricultural Re Director		ne No. (Include Area Code) 783-2460
Certifical certify that the statements I have made on this form and I acknowledge that any knowingly false or misleading state both under applicable law.	all attachments thereto are true		8. Date Application Received
2. Signature topm // Kath	3. Tide Manager, Registi	rations	i de destant de la
4. Typed Name Stephen J. Wratten, Ph.D.	5. Date January 14,	1998	1 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

PAPERWORK REDUCTION ACT NOTICE and INSTRUCTIONS

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- 2. Confidential Statement of Formula (EPA Form 8570-4);
- 3. Formulator's Exemption Statement (EPA Form 8570-27);
- 4. Five copies of draft labeling:
- 5. Three copies of any data submitted;
- Authorization letter where applicable;
- 7. Matrices where applicable.

Submission of Labeling - Labeling should first be submitted in the form of draft labels with all applications for new registration. Such draft labels may be in the form of typed label text on 8.5 x 11 inch paper for submission or a mockup of the proposed label. If prepared for mockup, it should be constructed in a way as to facilitate storage in an 8.5 x 11 inch file. Mockup labels significantly smaller than 8.5 x 11 inches should be mounted on 8.5 x 11 inch paper for submission.

Submission of Data - Data submitted in support of this application must be submitted in accordance with PR Notice 86-5.

SPECIFIC INSTRUCTIONS: Please read the instructions listed below before completing this application. First determine the type of registration action, listed in Block A, for which you are submitting this application: For applications submitted in connection with New Registration actions, Sections I, III, and IV must be completed by the applicant. For applications submitted in connection with amended reregistration actions, resubmissions, notifications, reregistrations, atc., Sections I, II, and IV must be completed by the applicant.

Block A & Check the appropriate action for which you are submitting this form.

SECTION ! - This section must be completed, as applicable, for all registration actions, a heart for all registration actions, a heart for all registration actions, and the completed are selected as a section of the completed and the completed are selected as a section of the completed are selected as a selected are selected are selected as a selected are selected a

- Company/Product Number Insert your Company Number, if one has been essigned by EPA. This number may have been essigned to you as a
 basic registrant, a distributor, or as an establishment. If your product is registered, insert the Product Number.
- 200 EPA Product Manager If known, fill in the name and PM number of the EPA Product Manager.
- Proposed Classification Specify the proposed classification of this product; ⊕ €
- 4. Product Name Enter the complete product name of this pesticide as it will appear on the label. The name must be specific to this product only. Duplication of names is not permitted among products of the same company. Do not include any brand name or company line designations.
- 5. Name and Address of Applicant. The name of the firm or person and eddress shown in your application is the person or firm to whom the registration will be issued. If you are acting in behalf of another party, you must submit authorization from that party to act for them in registration matters. An applicant not residing in the United States must have an authorized agent residing in the United States to act for them in all registration matters. The name and complete mailing eddress of such an agent must accompany this application.
- Expedited Review FIFRA section 3 (c) 3 (B) provides for expedited review of applications for registration; or amendments to existing registrations that are similar or identical to other pesticide products that are currently registered with the EPA. In order for your application to be eligible for expedited review, you must provide us with the EPA Registration Number and product name of the product you believe is similar to or identical to your product. The product must be similar or identical in both formulation and labeled uses.

SECTION II - This section must be completed for all applications submitted to amend the registration only of a currently registered product (Amendment); for a resubmission in response to an Agency letter, for notifications to the Agency, for the submission of final printed labeling, for reregistration and for any other action that pertains to a specific EPA-registered product. This section is not to be used for a new application for registration.

1. Subject of submission - Check the applicable block and provide the Agency letter date if appropriate. Provide a brief explanation of the purpose(s) for the submission, such as "the addition of a site, past or crop (specify), amend the Confidential Statement of Formula by..."; "reregistration submission"; "general label revision of use directions." Attach a separate page if additional space is needed.

SECTION III (Packaging and Container Information)" This Section must be completed for all applications submitted in connection with new registration of applicable amendments.

- 1. Type of Packaging Check the appropriate block if your product will be packaged in the indicated packaging types, indicate the size of the individual packate and number per retail container.
- 2. Type of Retail Container Indicate type of container in which product will be marketeds... 1853
- 3. Location of Net Contents Indicate the location of the net contents information for your product of the net contents information fo
- 4. Size(s) of Floral Container Specify the net contents of all retail containers for your product cast and service year
- 5. Location of Use Directions Indicate the location of the use directions for your product.
- 3. Manner in which label is affixed to product Indicated the method product label is attached to retail container.

SECTION IV (Contact Point) - This Section must be completed for all applications for Registration actions) i.e., new products registration, esubmission, "me-too," reregistration, etc.

i-5. Self-explanatory.

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. EPA Use Only.

Stofnen J. Uratten, Ph.S.

41

SUPPLEMENTAL LABELING

READ AND FOLLOW THE ENTIRE LABEL BOOKLET FOR ROUNDUP® HERBICIDE BEFORE PROCEEDING WITH THE USE DIRECTIONS CONTAINED IN THIS SUPPLEMENTAL LABELING.

"Label" as used in this supplemental labeling refers to the label booklet for ROUNDUP herbicide and this supplement

Submitted 18. Mar. 94

Approved originally 18. Mar. 91 Koundup

EPA Reg. No. 524-445

FOR AERIAL APPLICATION IN CALIFORNIA ONLY.

Keep out of reach of children.

WARNING! AVISO!

In case of an emergency involving this product, Call Collect, day or night, (314) 694-4000.

ROUNDUP® is a registered trademark of Monsanto Company.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in any manner inconsistent with its labeling,

This label must be in the possession of the user at the time of the herbicide application.

See "GENERAL INFORMATION" and "MOONG, ADDITIVES and APPLICATION INSTRUC-TIONS" sections of the Roundup lisbel booklet for essential product performance information.

See the "CROPPING SYSTEMS" of the lebel booldet for specific recommendations on the use of this product.

EXTREME CARE MUST BE EXERCISED TO AVOID CONTACT OF SPRAY WITH FOLIAGE. GREEN STEMS, OR FRUIT OF DESIRABLE CROPS, PLANTS, TREES, OR OTHER DESIR-ABLE VEGETATION SINCE SEVERE DAMAGE OR DESTRUCTION MAY RESULT.

Annal explications of this product are allowed in the following situations:

- in fallow and reduced blings systems prior to the emergence or transplanting of labeled CODE
- 2. In cotton, prior to hervest, Refer to the ROUNDUP® booklet for specific pre hervest application instructions.

Do not plant subsequent crops other than those listed in the tabel booklet for this product for 30 . dave following application

When applied as recommended, under the conditions described, this product controls arrival and perential weeds listed in the label booklet

DO NOT EXCEED A MAXIMUM RATE OF 1 QUART PER ACRE OF THIS PRODUCT WHEN MAKING APPLICATIONS BY AIR.

AERIAL EQUIPMENT

Use the recommended rates of this product in 3 to 15 gallons of water per sore,

Do not apply to water, to areas where surface water is present or to intertidal areas below the van high vester mark. Do not contaminate water when disposing of equipment washwaters.

AVOID DRIFT - DO NOT APPLY WHEN WINDS ARE GUSTY OR UNDER ANY OTHER CONDI-TION WHICH WILL ALLOW DRIFT, DRIFT MAY CAUSE DAMAGE TO ANY VEGETATION CONTACTED TO WHICH TREATMENT IS NOT INTENDED. TO PREVENT INJURY TO ADJACENT DESIRABLE VEGETATION, AP-PROPRIATE BUFFER ZONES MUST BE MAINTAINED

Use the following guidelines when serial applications are made near crops or desirable perennial vegetation other bud break and before total les drop, and/or near atter desirable vegetation Of BRITISH CHOOSE

- 1. Do not apply within 100 feet of all desirable vegetation or crop(s).
- 2. If wind up to 5 miles per hour is blowing todesirable vegetation or crop(s), do not apply within 500 hundred feet of desirable vagetation or crop(s),
- 3. Winds blowing from 5 to 10 miles per hour desirable vegetation may require buffer zones in excess of 500 lest.

4. Do not apply when winds are in expess of 10 miles per hour or when Invention conditions entet

Course spraye are less likely to drift; therefore, do not use rozzies or rozzie configurations which dispanse spray as fine spray droplets. Do not engle nozzles forward into the similarum and do not increase nozzie pressure,

Drift control additives may be used. When a drift control additive is used, read and constully channe the cautionary statements and of other information and all other information appearing on the edditive label,

Ensure uniform application - to evoid streeked, uneven or overlapped application, use appropriate marking devices.

Thoroughly wash eirorest, especially landing pear, wher each day of epraying to remove residues of this product accumulated during scraving or form spills. PROLONGED EXPO-SURE OF THIS PRODUCT TO UNCOATED STEEL SURFACES MAY RESULT IN CORRO-SION AND POSSIBLE FAILURE OF THE PART. LANDING GEAR IS MOST SUSCEPTI-BLE. The maintenance of an organic cooling (paint) which meets serospace specification MIL-C-38413 may prevent corresion.

Read the "LIMIT of WARRANTY AND LIMBS. TY in the label booklet for Roundup herbiolde before using this product. Those terms apply to this supplemental labeling and if those terms are not ecceptable, return the product unpowered at anas.

2100151-2-3/17/94

OMONSANTO COMPANY 1994

MONSANTO COMPANY **AGRICULTURAL PRODUCTS** ST. LOUIS, MO 63167

SUPPLEMENTAL LABELING

READ AND FOLLOW THE ENTIRE LABEL BOOKLET FOR MIRAGE [®]
HERBICIDE BEFORE PROCEEDING WITH THE USE DIRECTIONS
CONTAINED IN THIS SUPPLEMENTAL LABELING.

"Label" as used in this supplemental labeling refers to the label booklet for Mirage herbicide and this supplement.

MIRAGE®

EPA Reg. No. 524-445-34704

@Mirage is a registered trademark used under license.

FOR AERIAL APPLICATION IN CALIFORNIA ONLY

Keep out of reach of children.

WARNING! AVISO!

In case of an emergency involving this product, Call Collect, day or night, 314-694-4000.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in any manner inconsistent with its labeling.

This label must be in the possession of the user at the time of the herbicide application.

See "GENERAL INFORMATION" and "MIXING, AODITIVES and APPLICATION INSTRUCTIONS' sections of the Mirage label booklet for essential product performance information.

See the "CROPPING SYSTEMS" section of the label booklet for specific recommendations on the use of this product.

EXTREME CARE MUST BE EXER-CISED TO AVOID CONTACT OF SPRAY WITH FOLIAGE, GREEN STEMS, OR FRUIT OF DESIRABLE CROPS, PLANTS, TREES OR OTHER DESIR-ABLE VEGETATION, SINCE SEVERE DAMAGE OR DESTRUCTION MAY RESULT.

Aerial applications of this product are allowed in the following situations.

 In fallow and reduced tillage systems prior to the emergence or transplanting of labeled crops. In cotton, prior to harvest. Refer to the Mirage herbicide booklet for specific preharvest application instructions.

Oo not plant subsequent crops other than those listed in the label bookiet for this product 30 days following application.

When applied as recommended under the conditions described, this product controls annual and perennial weeds listed in the label booklet.

DO NOT EXCEED A MAXIMUM RATE OF 1 QUART PER ACRE OF THIS PRODUCT WHEN MAKING APPLICATIONS BY AIR.

Aerial Equipment

Use the recommended rates of this product in 3 to 15 gailons of water per acre.

Do not apply to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters.

AVOID DRIFT—DO NOT APPLY WHEN WINDS ARE GUSTY OR UNDER ANY OTHER CONDITION WHICH WILL ALLOW DRIFT. DRIFT MAY CAUSE

OAMAGE TO ANY VEGETATION CONTACTED TO WHICH TREATMENT IS NOT INTENDED. TO PREVENT INJURY TO ADJACENT DESIRABLE VEGETATION, APPROPRIATE BUFFER ZONES MUST BE MAINTAINED.

Use the following guidelines when aerial applications are made near, crops or desirable perennial vegetation after bud break and before total leaf drop, and/or near other desirable vegetation or annual crops.

- 1. Do not apply within 100 feet of all desirable vegetation or crop(s).
- If wind up to 5 miles per hour is blowing toward desirable vegetation or crop(s), do not apply within 500 feet of the desirable vegetation or crop(s).
- Winds blowing from 5 to 10 miles per hour toward desirable vegetation may require buffer zones in excess of 500 feet.
- 4. Do not apply when winds are in excess of 10 miles per hour or when inversion conditions exist.

Coarse sprays are less likely to drift, therefore, do not use nozzles or nozzle configurations which dispense spray

as fine spray droplets. Do not angle nozzles forward into the airstream and do not increase nozzle pressure.

Drift control additives may be used. When a drift control additive is used, read and carefully observe the cautionary statements and all other information appearing on the additive label.

Ensure uniform application—To avoid streaked, uneven or overlapped application, use appropriate marking devices.

Thoroughly wash aircraft, especially landing gear, after each day of spraying to remove residues of this product accumulated during spraying or from spills. PROLONGED EXPOSURE OF THIS PRODUCT TO UNCOATED STEEL SURFACES MAY RESULT IN CORROSION AND POSSIBLE FAILURE OF THE PART. LANDING GEAR IS MOST SUSCEPTIBLE. The maintenance of an organic coating (paint) which meets aerospace specification MIL-C-38413 may prevent corrosion.

Read the "LIMIT OF WARRANTY AND LIABILITY" in the label booklet for Mirage herbicide before using this product. Those terms apply to this supplemental labeling and if those terms are not acceptable, return the product unopened at once.

©1997

Manufactured for: Platte Chemical Company 419 18th St. P.O. Box 667 Greeley, Colorado 80532-0667 U.S.A.

21148V1-5

12/22/97

Monsanto

Monsanto Company Suite 1100 700 14th Street, N.W. Washington, D.C. 20005

October 10, 1997

Hand Delivered

Office of Pesticide Programs
Document Processing Center (NOTIF)
U.S. Environmental Protection Agency
Room 266A, Crystal Mall #2
1921 Jefferson Davis Highway
Arlington, VA 22202

Attention:

Mr. James A. Tompkins (7505C)

Team Leader (25)

Subject:

Mirage® Herbicide: EPA Reg. No. 524-445-34704

Supplemental Labeling for Aerial Application in California

Dear Mr. Tompkins:

R. P. Schneider D. Fee-White D. Rassmusson

In an accompanying letter, Monsanto has requested that the Agency grant a Distributor Supplemental registration allowing Platte Chemical Company to distribute "Mirage Herbicide", a new brand name for EPA Registration Number 524-445.

In order to allow applications of Mirage Herbicide by air in California, as referenced in the booklet labeling, Monsanto wishes to extend the aerial supplemental label previously approved for Roundup Herbicide on the same 524-445 EPA Registration Number to Mirage. We enclose five (5) copies of the new supplemental label and a completed form 8570-1 for your records.

If you have any questions on this matter please feel free to contact me through Dr. Russell P. Schneider or directly at 314-694-1582.

Sincerely,

Stephen J. Wratten

Manager, Registrations

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	Form App	roved. OMB No.	2070-0060	D. Approval expires 2-28-95
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PAPERWORK REDUCTION ACT NOTICE and INSTRUCTIONS

PAPERWORK REDUCTION ACT NOTICE: Public reporting burden for this collection of information is estimated to average 0.85 hour response, including time for reviewing instructions, searching existing data sources, gethering and maintaining the data needed, and completing enc reviewing the collection of information. Send comments regarding the burden estimate or any other espect of this collection of information, includir suggestions for reducing this burden, to Chief, Information Policy Branch, (2136), U.S. Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460; and to the Office of Information and Regulatory Affeirs, Office of Management and Budget, Washington, DC 20503.

INSTRUCTIONS: This form is to be used for all applications for new registration, and use reregistration, amendment, resubmission, to application for notifications, final printed labeling, reregistration, etc. In order to process an application for a new registration submitted on this form, the following material must accompany the application:

- 1. Certification with Respect to Citation of Data (EPA Form 8570-29). (If not exempted by 40 CFR 152.81 (b) (4)); 2. Confidential Statement of Formula (EPA Form 8570-4);
- 3. Formulator's Exemption Statement (EPA Form 8570-27);
- 4. Five copies of draft lebeling;
- 5. Three copies of any date submitted;
- Authorization letter where applicable;
- Matrices where applicable.

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Submission of Labeling - Labeling should first be submitted in the form of dreft labels with all applications for new registration. Such dreft labels may in the form of typed label text on 8.5 x 11 inch paper for submission or a mockup of the proposed label. If prepared for mockup, it should be constructed in a way as to facilitate storage in an 8.5 x 11 inch file. Mockup labels significantly smaller than 8.5 x 11 inches should be mounted on 8 x 11 inch pager for submission.

Submission of Data - Data submitted in support of this application must be submitted in accordance with PR Notice 86-5.

SPECIFIC INSTRUCTIONS: Please read the instructions fisted below before completing this application. First determine the type of registration action, listed in Block A, for which you are submitting this application. For applications submitted in connection with New Registration ections, Section I. III) and IV must be completed by the applicant. For applications submitted in connection with amended reragistration actions, resubmissions, notifications, reregistrations, etc., Sections I, II, and IV must be completed by the epplicant. Ĭ Block A - Check the appropriate action for which you are submitting this form.

SECTION 1 - This section must be completed, as applicable, for all registration actions.

- Company/Product Number Insert your Company Number, if one has been assigned by EPA. This number may have been assigned to you as a basic registrant, a distributor, or as an establishment. If your product is registered, insert the Product Number.
- EPA Product Manager If known, fill in the name and PM number of the EPA Product Manager.
- Proposed Classification Specify the proposed classification of this product:
- Product Name Enter the complete product name of this pesticide as it will appear on the label. The name must be specific to this product only. Duplication of names is not permitted among products of the same company. Do not include any brand name or company line designations.
- S. Name and Address of Applicant The name of the firm of person and address shown in your application is the person or firm to whom the registration will be issued. If you are acting in behalf of another party, you must submit authorization from that party to act for them in registration matters. An applicant not residing in the United States must have an authorized agent residing in the United States to act for them in left registration matters. The name and complete mailing address of such an agent must accompany this application...
- 6. Expedited Review FIFRA section 3_(c) 3.(8) provides for expedited review of applications for registration, or amendments to existing registration. that are similar or identical to other pesticide products that are currently registered with the EPA. In order for your application to be eligible for expedited review, you must provide us with the EPA Registration Number and product name of the product you believe is similar to or identical to your product. The product must be similar or identical in both formulation and labeled uses.

SECTION II - This section must be completed for all applications submitted to amend the registration only of a currently registered product (Amendment), for a resubmission in response to en Agency letter, for notifications to the Agency, for the submission of final printed labeling, for reregistration and for any other action that pertains to a specific EPA-registered product. This section is not to be used for a new application for registration.

1. Subject of submission - Check the applicable block and provide the Agency letter date if appropriate. Provide a brief explanation of the purposate ...for the submission, such as, the addition of a site, past or crop (spacify). Camend the Confidential Statement of Formula by... "; "reregistration submission"; "general label revision of use directions.". Attach a separate page if additional apace is needed.....

SECTION III (Packaging and Container Information) - This Section must be completed for all applications submitted in connection with new which should be a feet to registration or applicable amendments.

- 1. Type of Packaging Check the appropriate block if your product will be packaged in the indicated packaging types. Indicate the size of the individual packets and number per retail container. Assets (4) 1572
- 2. Type of Retail Container Indicate type of container in which product will be marketed.
- 3. Location of Net Contents Indicate the location of the net contents information for your product.
- 4. Sizets) of Retail Container Specify the net contents of all retail containers for your product.
- 5. Location of Use Directions Indicate-the location of the use directions for your product.
- 6. Maliner in which label is affixed to product Indicated the method product label is attached to retail container.

SECTION IV (Contact Point) - This Section must be completed for all applications for Registration actions, he new products registration resubmission, "me-too," reregistration, etc.

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Monsanto

Monsanto Company Suite 1100 700 14th Street, N.W. Washington, D.C. 20005

January 9, 1998

Hand Delivered

Office of Pesticide Programs
Document Processing Center (Final Printed Labeling)
U.S. Environmental Protection Agency
Room 266A, Crystal Mall #2
1921 Jefferson Davis Highway
Arlington, VA 22202

Attention:

Mr. James A. Tompkins (7505C)

Team Leader (25)

Subject:

Mirageô Herbicide (EPA Reg. No. 524-445-34704)

Final Printed Label Booklets

Responsive to Notification dated 10-Oct-97

Dear Mr. Tompkins:

On 10-Oct-97, Monsanto notified the Agency that Platte Chemical will provide growers with a new distributor product under EPA Reg. No. 524-445 using brand name "Mirage Herbicide". Although Monsanto realizes that the Agency does not require submission of labeling for distributor products, herein we provide three (3) copies of the final printed booklet labeling should you desire copies in your files.

If you have any questions on this matter please feel free to contact me through Dr. Russell P. Schneider or directly at 314-694-1582.

Sincerely,

Stephen J. Wratten

Manager, Registrations

cc: R. P. Schneider

Cherie Gamer, Platte (letter only)

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3. Title

5. Date

Stephen J. Wratten, Ph.D.

2. Signature

Manager, Registrations

January 9, 1998

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- Proposed Classification Specify the proposed classification of this product,
- Product Name Enter the complete product name of this posticide as it will appear on the label. The name must be specific to this product only.

 Duplication of names is not permitted among products of the same company. Do not include any brand name or company line designations.
- Name and Address of Applicant The name of the firm or person and address shown in your application is the person or firm to whom the registration will be issued. If you are acting in behalf of another party, you must submit authorization from that party to act for them in registration matters. An applicant not residing in the United States must have an authorized agent residing in the United States to act for them in all registration matters. The name and complete mailing address of such an agent must accompany this application.
- Expedited Review FIFRA section 3 (c) 3 (B) provides for expedited review of applications for registration, or amendments to existing registrations, that are similar or identical to other posticide products that are currently registered with the EPA. In order for your application to be eligible for expedited review, you must provide us with the EPA Registration Number and product name of the product you believe is similar to or identical to your product. The product must be similar or identical in both formulation and labeled uses.

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1-5. Self-explanatory.

EPA Usa Only.

January 9, 1998

Stephen 3. Mondoes, .mlD.



MIRAGE

HERBICIDE

Complete Directions For Use EPA Reg. No. 524-445-34704

AVOID CONTACT WITH FOILAGE, GREEN STEMS, EXPOSED NON-WOODY ROOTS OR FRUIT OF CHOPS, DESIRABLE PLANTS AND TREES, SINCE SEVERE INJURY OR DESTRUCTION MAY RESULT.

In case of a human health emergency involving this product, Call Collect, day or night, (314) 534-4000.

For more product information, call your nearest United Ag. Products representative.

Mirage* is a registered trademark used under license.

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Read the entire label before using this product.

Use only/according to label instructions.

Read "LIMIT OF WARRANTY AND LIABILITY" before buying or using, if terms are not acceptable, return at once unopened.

REFORMULATION IS PROHIBITED. SEE INDIVIDUAL CONTAINER LABEL FOR REPACKAGING LIMITATIONS.

LIMIT OF WARRANTY AND LIABILITY

This Company warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes set forth in the Complete Directions for Use tabel booklet ("Directions") when used in accordance with those Directions under the conditions described therein. NO OTHER EXPRESS WARRANTY OR IMPLIED WARRANTY OF FITNESS FOR PARTICULAR PURPOSE OR MERCHANTABILITY IS MADE. This warranty is also subject to the conditions and limitations stated herein.

Buyer and all users shall promptly notify this Company of any claims whether based in contract, negligence, strict liability, other tort or otherwise.

Buyer and all users are responsible for all loss or damage from use or handling which results from conditions beyond the control of this Company, including, but not limited to, incompatibility with products other than those set forth in the Directions, application to or contact with desirable vegetation, unusual weather, weather conditions which are outside the range considered normal at the application site and for the time period when the product is applied, as well as weather conditions which are outside the application ranges set forth in the Directions, application in any manner not explicitly set forth in the Directions, moisture conditions outside the moisture range specified in the Directions, or the presence of products other than those set forth in the Directions in or on the soil, crop or treated vegetation.

THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE LIMIT OF THE LABILITY OF THIS COMPANY OR ANY OTHER SELLER FOR ANY AND ALL LOSSES, INJURIES OR DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT (INCLUDING CLAIMS BASED IN CONTRACT, NEGLIGENCE, STRICT LIABILITY, OTHER TORT OR OTHERWISE) SHALL BE THE PURCHASE PRICE PAID BY THE USER OR BUYER FOR THE QUANTITY OF THIS PRODUCT INVOLVED, OR. AT THE ELECTION OF THIS COMPANY OR ANY OTHER SELLER, THE REPLACEMENT OF SUCH QUANTITY, OR, IF NOT ACQUIRED BY PURCHASE, REPLACEMENT OF SUCH QUANTITY IN NO EVENT SHALL THIS COMPANY OR ANY OTHER SELLER BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES.

Buyer and all users are deemed to have accepted the terms of this LIMIT OF WARRANTY AND LIABILITY which may not be varied by any verbal or written agreement.

INIT OF WARRANTY AND LIABILITY	2.3
POPECAUTIONADY STATEMENTS	5, 6
ENVIRONMENTAL HAZAROS	6
ENVIRONMENTAL HAZARUS	1
INGREDIENTS	0
STORAGE AND DISPOSAL	
GENERAL INFORMATION	9 thru 11
MENING INSTRUCTIONS	
APPLICATION EQUIPMENT	
DIRECTIONS FOR USE	8 thru 112
WEEDS CONTROLLED	22
WEEDS CONTROLLED	22 thru 31
ANNUAL WEEDS	21 thro AA
PERENNIAL WEEDS	
WOODY BRUSH AND TREES	UC DWD 64
NONCROP USES	
COUDDING SYSTEMS	

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

Keep out of reach of children.

WARNING! AVISO!

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detaile. (If you do not understand the label, find someone to explain it to you in detail.)

CAUSES SUBSTANTIAL BUT TEMPORARY EYE INJURY.

HARMFUL IF SWALLDWED OR INHALED.

Do not get in eyes or on clothing.

Avoid breathing vapor or spray mist.

FIRST AID: IF IN EYES, immediately hold eyelids open and flush with plenty of water for at least 15 minutes. Get medical attention.

IF INHALED, remove individual to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. Get medical attention.

IF SWALLOWED, this product will cause gastrointestinal tract irritation. Immediately dilute by swallowing water or milk. Get medical attention. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON.

Personal Protective Equipment (PPE)

Applicators and other handlers must wear: long-sleeved shirt and fong pants, shoes plus socks, and protective eyewear. Discard clothing and other absorbent materials that have been dienched or heavily contaminated with this product's concentrate. Do not reuse them, follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

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When handlers use closed systems, enclosed-cabs, or aircraft in a manner that meets the requirements listed in Worker Protection Standard (WPS) for agricultural pesticides (40 CFR 170.240 (d) (4-6)), the handler PPE requirements may be reduced or modified as specified in the WPS.

User Safety Recommendations:

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

In case of an emergency involving this product, Call Collect, day or night, (314) 694-4000.

Environmental Hazards

On not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. On not contaminate water when disposing of equipment washwaters.

Physical or Chemical Hazards

Spray solutions of this product should be mixed, stored and applied using only stainless steet, atuminum, fiberglass, plastic or plastic-lined steel containers.

DO NOT MIX, STORE OR APPLY THIS PRODUCT OR SPRAY SOLUTIONS OF THIS PRODUCT IN GALVANIZED STEEL OR UNLINED STEEL (EXCEPT STAINLESS STEEL) CONTAINERS OR SPRAY TANKS. This product or spray solutions of this product react with such containers and tanks to produce hydrogen gas which may form a highly combustible gas mixture. This gas mixture could flash or explode, causing serious personal injury, if ignited by open flame, spark, welder's torch, lighted cigarette or other ignition source.

ACTIVE INGREDIENT

*Gryphosate, N-(phosphonomethyl)grycine, in the form of its isopropylamine salt 41.0% INERT INGREDIENTS: 59.0%

*Contains 480 grams per litre or 4 pounds per U.S. gallon of the active ingredient glyphosate, in the form of its isopropylamine salt. Equivalent to 356 grams per fitre or 3 pounds per U.S. gallon of the acid, glyphosate.

This product is protected by U.S. Patent No. 4,405,531. Other patents pending. No license granted under any non-U.S. patent(s).

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in any manner inconsistent with its labeling. For any requirements specific to your State or fribe, consult the agency responsible for pesticide regulations.

Agricultural Use Requirements

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is: coveralls, waterproof gloves, shoes plus socks, and protective eyewear.

Non-Agricultural Use Requirements

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries or greenhouses.

Keep people and pets off treated areas until spray solution has dried to prevent transfer of this product onto desirable vegetation.

For more product information, call your nearest United Ag. Products representative.

Storage and Disposal

Do not contaminate water, foodstuffs, feed or seed by storage or disposal.

See container label for STORAGE AND DISPOSAL instructions.

GENERAL INFORMATION

DO NOT APPLY THIS PRODUCT USING AERIAL SPRAY EQUIPMENT EXCEPT UNDER CONDITIONS AS SPECIFIED WITHIN THIS LABEL.

This product, a water soluble liquid, mixes readily with water to be applied as a foliar spray for the control or destruction of most herbaceous plants. It may be applied through most standard industrial or field-type sprayers after dilution and thorough mixing with water in accordance with label instructions.

This product moves through the plant from the point of foliage contact to and into the root system. Visible effects on most annual weeds occur within 2 to 4 days, but on most oceranial weeds may not occur for 7 days or more. Extremely cool or cloudy weather following treatment may slow activity of this product and delay visual effects of control. Visible effects are a gradual wilting and yellowing of the plant which advances to complete browning of above-ground growth and deterioration of underground plant parts.

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Unless otherwise specified on this label, delay application until vegetation has emerged and reached the stages described for control of such vegetation under the "WEEDS CONTROLLED" section of this label. Unemerged plants arising from unattached underground rhizomes or root stocks of perennials will not be affected by the herbicide and will continue to grow. For this reason, best control of most perennial weeds is obtained when treatment is made at late growth stages approaching maturity.

Always use the higher rate of this product per acre within the recommended range when (1) weed growth is heavy or dense, or (2) weeds are growing in an undisturbed (noncultivated) area.

Do not treat weeds under poor growing conditions such as drought stress, disease or insect damage, as reduced weed control may result. Reduced results may also occur when treating weeds heavily covered with dust.

Reduced control may result when applications are made to annual or perennial weeds that have been mowed, grazed, or cut, and have not been allowed to regrow to the recommended stage for treatment.

Rainfall or irrigation occurring within 6 hours after application may reduce effectiveness. Heavy rainfall or irrigation within 2 hours after application may wash the chemical off the foliage and a repeat treatment may be required.

This product does not provide residual weed control. For subsequent residual weed control, follow a label-approved herbicide program. Read and carefully observe the cautionary statements and all other information appearing on the labels of all herbicides used.

Buyer and all users are responsible for all loss or damage in connec-. tion with the use or handling of mixtures of this product with herbicides or other materials that are not expressly recommended in this labeling. Mixing this product with herbicides or other materials not recommended on this label may result in reduced performance.

For best results, spray coverage should be uniform and complete. Oo not spray weed foliage to the point of runoff.

DOMESTIC ANIMALS: This product is considered to be relatively nontoxic to dogs and other domestic animals; however, ingestion of this product or large amounts of freshly sprayed vegetation may result in temporary gastrointestinal irritation (vomiting, diarrhea, colic, etc.). If such symptoms are observed, provide the animal with plenty of fluids to prevent dehydration. Call a veterinarian if symptoms persist for more than 24 hours.

ATTENTION

AVOID ORIFT EXTREME CARE MUST BE USED WHEN APPLYING THIS PRODUCT TO PREVENT INJURY TO DESIRABLE PLANTS AND CROPS.

Oo not allow the herbicide solution to mist, drip, drift or splash onto desirable vegetation since minute quantities of this product can cause severe damage or destruction to the crop, plants or other areas on which treatment was not intended. The likelihood of injury occurring from the use of this product is greatest when winds are gusty or in excess of 5 miles per hour or when other conditions, including lesser wind velocities, will allow spray drift to occur. When spraying, avoid combinations of pressure and nozzle type that will result in splatter or line particles (mist) which are likely to drift. AVOID APPLYING AT EXCESSIVE SPEED OR PRESSURE.

NOTE: Use of this product in any manner not consistent with this label may result in injury to persons, animals or crops, or other unintended consequences. Keep container closed to prevent spills and contamination

MIXING, ADDITIVES AND APPLICATION INSTRUCTIONS

APPLY THESE SPRAY SOLUTIONS IN PROPERLY MAINTAINED AND CALIBRATED EQUIPMENT CAPABLE OF DELIVERING DESIRED VOLUMES. DO NOT APPLY WHEN WIND OR OTHER CONDITIONS FAVOR

DRIFT, HAND-GUN APPLICATIONS SHOULD BE PROPERLY DIRECTED TO AVOID SPRAYING DESIRABLE PLANTS. NOTE: REDUCED RESULTS MAY OCCUR IF WATER CONTAINING SOIL IS USED, SUCH AS WATER FROM PONDS AND UNLINED DITCHES.

MIXING

This product mixes readily with water. Mix spray solutions of this product as follows: Fill the mixing or spray tank with the required amount of water. Add the recommended amount of this product (see the "DIRECTIONS FOR USE" and "WEEDS CONTROLLED" sections of this label) near the end of the filling process and mix well. Use caution to avoid siphoning back into the carrier source. Use approved anti-back-siphoning devices where required by state or local regulations. During mixing and application, foaming of the spray solution may occur. To prevent or minimize foam, avoid the use of mechanical agitators, terminate by pass and return lines at the bottom of the tank and, if needed, use an approved anti-foam or defoaming agent.

TANK MIXTURES

Always predetermine the compatibility of labeled tank mixtures of this product with water carrier by mixing small proportional quantities in

Mix labeled tank mixtures of this product with water as follows:

- 1. Place a 20 to 35 mesh screen or wetting basket over filling port.
- 2. Through the screen, fill the spray tank one-half full with water and
- 3. If a wetlable powder is used, make a slurry with the water carrier, and add it SLOWLY through the screen into the tank. Continue
- 4. If a flowable formulation is used, premix one part flowable with one part water. Add diluted mixture SLOWLY through the screen into the lank. Continue agitation.
- 5. If an emulsifiable concentrate formulation is used, premix one part emulsifiable concentrate with two parts water. Add diluted mixture slowly through the screen into the tank. Continue agitation.
- 6. Continue filling the spray tank with water and add the required amount of this product near the end of the filling process.
- 7. Where nonionic surfactant is recommended, add this to the spray
- 8. Add individual formulations to the spray tank as follows: wetlable powder, flowable, emulsifiable concentrate, drift control additive, water soluble liquid followed by surfactant

Maintain good agitation at all times until the contents of the tank are sprayed. If the spray mixture is allowed to settle, thorough agitation is required to resuspend the mixture before spraying is resumed.

Keep by pass line on or near bottom of tank to minimize foaming. Screen size in nozzle or line strainers should be no liner than 50 mesh. Carefully select proper nozzle to avoid spraying a fine mist. For best results with conventional ground application equipment, use flat fan nozzies.

Clean-sprayer and parts immediately after using this product by thoroughly flushing with water.

ADDITIVES

SURFACTANTS

Nonionic surfactants which are labeled for use with herbicides may. be used. Do not reduce rates of this product when adding surfactant. When adding additional surfactant, use 0.5 percent surfactant concentration (2 quarts per 100 gallons of spray solution) when using surfactants which contain at least 70 percent active ingredient or a I percent surfactant concentration (4 quarts per 100 gallons of spray solution) for those surfactants containing less than 70 percent active ingredient. Read and carefully observe surfactant cautionary statements and other information appearing on the surfactant label.

AMMONIUM SULFATE

The addition of 1 to 2 percent dry ammonium sulfate by weight or 8.5 to 17 pounds per 100 gallons of water may increase the performance of this product, and this product plus 2.4-D. Banyette or residual herbicide tank mixtures on annual and perennial weeds. The improvement in performance may be apparent where environmental stress is a concern. Low-quality ammonium sulfate may contain material that will not readily dissolve, which could result in nozzle tip plugging. To determine quality, perform a jar test by adding 1/3 cup of ammonium sulfate to 1 gatton of water and agitate for 1 minute. If undissolved sediment is observed, predissolve the ammonium sulfate in water and filter prior to addition to the spray tank. If ammonium sulfate is added directly to the spray tank, add slowly with agitation. Adding too quickly may clog outlet line. Ensure that ammonium sulfate is completely dissolved in the spray tank before adding herbicides or surfactant. Thoroughly rinse the spray system with clean water after use to reduce corresion

NOTE: The use of ammonium sulfate as an additive does not preclude the need for additional surfactant. Do not use herbicide rates lower than recommended in this label.

COLORANTS OR DYES

Agriculturally-approved colorants or marking dyes may be added to this product. Colorants or dyes used in spray solutions of this product may reduce performance, especially at lower rates or dilutions. Use colorants or dyes according to the manufacturer's recommendations.

APPLICATION EQUIPMENT AND TECHNIQUES

Do not apply this product through any type of irrigation system.

This product may be applied with the following application equipment:

Aerial—Fixed Wing and Helicopter

Broadcast Spray

Controlled Droplet Applicator (COA)—Hand-held or boommounted applicators which produce a spray consisting of a narrow range of droplet sizes.

Hand-Held and High-Volume Spray Equipment—Knapsack and backpack sprayers, pump-up pressure sprayers, handguns, handwands, mistblowers*, lances and other hand-held and motorized spray equipment used to direct the spray onto weed foliage.

*This product is not registered in California or Arizona for use in mistblowers.

Selective equipment—Recirculating sprayers, shielded sprayers and wiper applicators.

See the appropriate part of this section for specific instructions and rates of application.

AERIAL EQUIPMENT

Use the recommended rates of this herbicide in 3 to 15 gallons of water per acre unless otherwise specified on this label. See the "WEEDS CONTROLLED" section of this label for specific rates, Unless otherwise specified, do not exceed 1 quart per acre. Aerial applications of this product may be made in annual cropping conventional tillage systems, fallow and reduced tillage systems and preharvest applications. Refer to the individual use area sections of this label for recommended volumes and application rates. FOR AERIAL APPLICATION IN CALIFORNIA, REFER TO THE FEDERAL SUPPLEMENTAL LABEL FOR AERIAL APPLICATIONS IN THAT STATE FOR SPECIFIC INSTRUCTIONS, RESTRICTIONS AND REQUIREMENTS.

Avoid direct application to any body of water.

AVOID DRIFT—OO NOT APPLY DURING LOW-LEVEL INVERSION CON-DITIONS, WHEN WINDS ARE GUSTY OR UNDER ANY OTHER CONDI-TION WHICH FAVORS DRIFT. DRIFT MAY CAUSE DAMAGE TO ANY VEGETATION CONTACTED TO WHICH TREATMENT IS NOT INTENDED. TO PREVENT INJURY TO ADJACENT DESIRABLE VEGETATION, APPRO-PRIATE BUFFER ZONES MUST BE MAINTAINED.

Coarse sprays are less likely to drift; therefore, do not use nozzles or nozzle configurations which dispense spray as fine spray droplets. Do not angle nozzles forward into the airstream and do not increase spray volume by increasing nozzle pressure.

Drift control additives may be used. When a drift control additive is used, read and carefully observe the cautionary statements and all other information appearing on the additive label.

Ensure uniform application - To avoid streaked, uneven or overlapped application, use appropriate marking devices.

Thoroughly wash aircraft, especially landing gear, after each day of spraying to remove residues of this product accumulated during spraying or from spills. PROLONGED EXPOSURE OF THIS PRODUCT TO IINCOATED STEEL SURFACES MAY RESULT IN CORROSION AND POSSIBLE FAILURE OF THE PART, LANDING GEAR ARE MOST SUSCEP-TIBLE. The maintenance of an organic coating (paint), which meets aerospace specification MIL-C-38413, may prevent corrosion.

This product plus Oustim, Banvel or 2,4-B tank mixtures may not be applied by air in California.

BROADCAST EQUIPMENT

For control of annual or perennial weeds listed on this label using broadcast equipment—Use the recommended rates of this product in 3 to 40 gallons of water per acre as a broadcast spray unless otherwise specified on this tabel. See the "WEEDS CON-TROLLED" section of this label for specific rates. As density of weeds increases, spray volume should be increased within the recommended range to ensure complete coverage. Carefully select proper nozzle to avoid spraying a fine mist. For best results with ground application equipment, use flat fan nozzles. Check for even distribution of spray droplets.

CONTROLLED DROPLET APPLICATION (CDA)

The rate of this product applied per acre by vehicle-mounted CDA equipment must not be less than the amount recommended in this label when applied by conventional broadcast equipment. For vehiclemounted CDA equipment, apply 3 to 15 gallons of water per acre.

For the control of labeled annual weeds with hand-held CDA units. apply a 20 percent solution of this product at a flow rate of 2 fluid ounces per minute and a walking speed of 1.5 mph (1 quart per acre). For the control of labeled perennial weeds, apply a 20 to 40 percent solution of this product at a flow rate of 2 fluid ounces per minute and a walking speed of 0.75 mph (2 to 4 quarts per acre).

Controlled droplet application equipment produces a spray pattern which is not easily visible. Extreme care must be exercised to avoid spray or drift contacting the foliage or any other green tissue of desirable vegetation, as damage or destruction may result.

HAND-HELD and HIGH-VOLUME EQUIPMENT

Use coarse sprays only.

Mix this product in clean water and apply to foliage of vegetation to be controlled. For applications made on a spray-to-wet basis, spray coverage should be uniform and complete. Do not spray to the point of

For control of annual weeds listed on this label, apply a 0.5 percent solution of this product plus nonionic surfactant to weeds less than 6 inches in height or runner length. Apply prior to seedhead formation in grass or bud formation in broadleaf weeds. Allow three or more days before tillage or mowing.

For annual weeds over 6 inches tall, or when not using additional surfactant, or unless otherwise specified, use a 1 percent solution. For best results, use a 2 percent solution on harder-to-control perennials.

such as bermudagrass, dock, field bindweed, hemp dogbane, milkweed and Canada thistle.

When using application methods which result in less than complete coverage, use a 5 percent solution for annual and perennial weeds and a 5 to 10 percent solution for woody brush and trees.

Prepare the desired volume of spray solution by mixing the amount of this product in water as shown in the following table:

Spray Solution

Desired			Amount	of Mirage	9	
Volume	1/2%	1%	11/2%	2%	5%	10%
I Gal 25 Gal 100 Gal	²/s oz 1 pt 2 qt	1½ oz 1 qt 1 gal fluid ounce	2 oz 1½ qt 1½ gal	2 ² /3 oz 2 qt 2 gal	6 ¹ /2 oz 5 qt 5 gal	13 oz 10 qt 10 gat

For use in knapsack sprayers, it is suggested that the recommended amount of this product be mixed with water in a larger container. Fill sprayer with the mixed solution.

SELECTIVE EQUIPMENT

This product may be applied through a recirculating spray system, a shielded applicator, or a wiper applicator after dilution and thorough mixing with water to listed weeds growing in any noncrop site specified on this label and only when specifically recommended in cropping

A recirculating spray system directs the spray solution onto weeds growing above desirable vegetation, while spray solution not intercepted by weeds is collected and returned to the spray tank for reuse.

A shielded applicator directs the herbicide solution onto weeds, while shielding desirable vegetation from the herbicide.

A wiper applicator applies the herbicide solution onto weeds by rubbing the weed with an absorbent material containing the herbicide

AVOID CONTACT WITH DESIRABLE VEGETATION.

Contact of the herbicide solution with the desirable vegetation may result in damage or destruction. Applicators used above desired vegetation should be adjusted so that the towest spray stream or wiper contact point is at least 2 inches above the desirable vegetation. Droplets, mist, foam, or splatter of the herbicide solution settling on desirable vegelation may result in discoloration, stunting or destruction.

Applications made above the crops should be made when the weeds are a minimum of 6 inches above the desirable vegetation. Better results may be obtained when more of the weed is exposed to the herbicide solution. Weeds not contacted by the herbicide solution will not be affected. This may occur in dense clumps, severe infestations or when the height of the weeds varies so that not all weeds are contacted. In these instances, repeat treatment may be necessary.

SHIELDED APPLICATORS

When applied as directed under conditions described for shielded applicators, this product will control those weeds listed in the "WEEDS CONTROLLED" section of this label.

Use the following equation to convert from a broadcast rate per acre to a band rate per acre.

Band width <u>in inches</u> Row width in inches	X	Herbicide Broadcast RATE per acre	=	Herbicide Band RATE per acre
Band width in inches Row width in inches	X	Broadcast VOLUME of solution per acre	=	Band VOLUME of solution per acre

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Use nozzles that provide uniform coverage within the treated area. Keep shields on shielded sprayers adjusted to protect desirable vegetation. Extreme care must be exercised to avoid contact with DESIRABLE VEGETATION.

For specific rates of application and instructions for control of various annual and perennial weeds, see the "WEEDS CONTROLLED" section

WIPER APPLICATORS

Wiper applicators are devices that physically wipe appropriate amounts of this product directly onto the weed.

Equipment must be designed, maintained and operated to prevent the herbicide solution from contacting desirable vegetation. Operate this equipment at ground speeds no greater than 5 mph. Performance may be improved by reducing speed in areas of heavy weed intestations to ensure adequate wiper saturation. Better results may be obtained if 2 applications are made in opposite directions.

Avoid leakage or dripping onto desirable vegetation. Adjust height of applicator to ensure adequate contact with weeds. Keep wiping surfaces clean. Be aware that, on sloping ground, the herbicide solution may migrate, causing dripping on the lower end and drying of the wicks on the upper end of a wiper applicator.

Do not use wiper equipment when weeds are wel.

Mix only the amount of solution to be used during a 1-day period, as reduced activity may result from use of leftover solutions. Clean wiper parts immediately after using this product by thoroughly flushing with

Do not add surfactant to the herbicide solution.

For Rope or Sponge Wick Applicators—Mix 1 gallon of this product in 2 gallons of water to prepare a 33 percent solution. Apply this solution to weeds listed in this "WIPER APPLICATORS" section.

For Porous-Plastic Applicators — Solutions ranging from 33 to 100 percent of this product in water may be used in porous-plastic wiper

When applied as recommended under the conditions described for "WIPER APPLICATORS", this product CONTROLS the following weeds:

<u>Annual Grasses</u>

Corn

Zea mays

Panicum, Texas

Panicum texanum

ANNUAL BROADLEAVES

Sicklepod

Cassia obtusifolia

Spanishneedles Bidens bipinnata Starbur, bristly Acanthospermum hispidum

Rye. сотток

Shaftercane

Secale cereale

Sorghum bicolor

When applied as recommended under the conditions described for "WIPER APPLICATORS", this product SUPPRESSES the following weeds.

<u>Annual broadleaves</u>

Beggarweed, Florida

Desmodium tortuosum

Doglennet

Eupatonum capillillorium

Pigweed, redroot

Amaranthus retrollexus

Ragweed, common Ambrosia artemisiilolia Ragweed, giant Ambrosia trifida

Sunflower

Helianthus annuus

Thistle, musk

Carduus nutans

Velvetleaf

Abutilon theophrasti

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PERENNIAL GRASSES

Bermudagrass

Cynodan dactylon

Guineagrass

Panicum maximum

Johnsongrass Sorghum halepense

PERENNIAL BROADLEAVES

Dogbane, hemp Apocynum cannabinum

Milkweed Ascelepias syriaca

Sporobolus poiretii Vaseygrass Paspalum urvillei

Smutgrass.

Nightshade, silverleaf Solanum elaeagnilolium

Thistle, Canada Cirsium arvense

WEEDS CONTROLLED

This herbicide controls many annual and perennial grasses and

ANNUAL WEEDS

- Apply to actively growing grass and broadleaf weeds.
- Allow at least 3 days after treatment before tillage.
- For maximum agronomic benefit, apply when weeds are 6 inches or
- To prevent seed production, applications should be made prior to
- This product does not provide residual control, therefore, delay application until maximum weed emergence. Repeat treatments may be necessary to control fater germinating weeds.

LOW-VOLUME BROADCAST APPLICATION (LOW-RATE TECHNOLOGY)

When applied as directed under the conditions described, this product

- 1. Water carner volumes of 3 to 10 gallons per acre for ground appli-Cations and 3 to 5 gallons per acre for aerial applications are recommended. (See the "AERIAL APPLICATION" section of this label for approved sites.)
- 2. A nominic surfactant is added at 0.5 to 1 percent by total spray volume. Use 0.5 percent surfactant concentration when using survolume, use u.s percent surractant concentration when using sur-factants which contain at least 70 percent active ingredient or a 1 percent surfactant concentration for those surfactants containing

- The addition of 2 percent dry ammonium sulfate by weight or 17 pounds per 100 gallons of water may increase the performance of this product on annual weeds. The improvement in performance may be apparent where environmental stress is a concern. Refer to the "MIXING, ADDITIVES and APPLICATION INSTRUCTIONS" Section of this label.
- Do not tank-mix with soil residual herbicides when using these
- For weeds that have been mowed, grazed or cut, allow regrowth to
- Refer to the "TANK MIXTURES" portion of this section for control of

WEED SPECIES	MAXIMUM HEIGHT/LENGTH	RATE PER ACRE*
Fortail	HIDWARMOLN	(Fluid Ounces)
_Setaria spp.	12"	8 oz.
Barnyardgrass	+	0 02.
Echinochloa crus-galli	6" (0 to 4"	12 02.
Bluegrass. annual Poà annua	(4 to 6*	16 oz.1) 24 oz.1)
Brome, downy** Bromus lectorum		
Mustard, blue Chorispora lenella		•
Mustard, tansy Descurainia pinnata	ŀ	
Mustard, tumble Sisymbrium allissimum		
Mustard, wild Sinapis arvensis	1	
Spurry, umbrella Holosteum umbellatum		
Barley Hordeum vulgare	12"	· ·
Rye	· 1	
Secale cereale	1	
Sandbur, field Cenchrus spp.		
	1	

Shattercane Sorghum bicolor Stinkgrass Eragrostis cilianensis Wheat Triticum aestivum 18" Morningglory Ipomoea spp. 2 Sicklepad 16 oz. Cassia oblusifolia Bluegrass, bulbous Poa bulbosa . 6* Cheat Bromus secalinus Chickweed, common Stellaria media Chickweed, mouseear Cerastium vulgatum Corn Zea mays Goatgrass, jointed Aegilops cylindrica Groundsel, common Senecio vulgaris Henbit Lamium amplexicaule Horseweed/Marestail Conyza canadensis

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WEED SPECIES	MAXIMUM HEIGHT/LENGTH	RATE PER ACRE* (Fluid Dunces)
Lambsquarters, common Chenopodium album	6"	16 oz.
Pennycress, field Fanweed Thlaspi arvense		
Rocket, London Sisymbrium irio		
Ryegrass, Italian Lolium multiflorum		
Shepherdspurse Capsella bursa-pastoris		
Spurge, annual Euphorbia spp.		
Buttercup Ranunculus spp.	12*	
Cocklebur Xanthium strumarium		
Crabgrass Digitaria spp.		
Owarfdandellon Krigia cespitosa		
Falseflax, smallseed Camelina microcarpa		
Foxtail, Carolina Alopecurus carolinianus		

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Johnsongrass, seedling Sorghum halepense		
- Oats, wild Avena fatua	1	
Panicum, tall Panicum dichotomifloru		
Panicum, Texas Panicum texanum	"" -	
Pigweed, redroot Amaranthus retroflexus		
Pigweed, smooth Amaranthus hybridus		į
Witchgrass Panicum capillare		
Sicklepod Cassia oblusifolia	3 to 4*	24 oz.
Signalgrass, broadleaf Brachiaria platyphylla	4-	1
Norseweed/Marestail Conyza canadensis	7 to 12*	1.
ambsquarters, common Chenopodium album		
purge, annual Euphorbia spp.		
ce, red Oryza sativa	4*	32 oz.
aweed Sida spinosa		

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WEED SPECIES	MAXIMUM HEIGHT/LENGTH	RATE PER ACRE* (Fluid Ounces)
Sprangletop Leptochloa spp.	6.	32 oz.
Geranium, Carolina Geranium carolinianum	12"	
Goosegrass Eteusine indica		
Primrose, cutteaf evening Oenothera laciniate		
Pustey, Florida Richardia scabra		
Sicklepod Cassia obtusilolia	5 to 12*	
Spanishneedles Bidens bipinnata		
Filaree Erodium spp.	12"	_48 oz.
Sprangletop Leptochloa spp.		

*Use these rates to control barnyardgrass in Alabama, Arkansas, Mississippi, Missouri, Louisiana and Texas for preplant treatments.

- For those rates less than 32 fluid ounces per acre, this product at rates up to 32 fluid ounces per acre may be used where heavy weed densities exist.
- ** For control in no-till systems, use 16 fluid ounces per acre.

TANK MIXTURES

MIRAGE® plus BANVEL plus Honionic Surfactant

MIRAGE plus 2,4-D plus Nonionic Surfactant

DO NOT APPLY BANVEL OR 2.4-D TANK MIXTURES BY AIR IN CALIFORNIA.

These tank mixtures are recommended for use in fallow and reduced tillage areas only. Follow use directions as given in the "LOW-VOLUME BROADCAST APPLICATION" section.

This product plus Banvel or 2,4-0 will control the annual grasses and broadleaf weeds listed for this product alone at the indicated heights broadleaf weeds. For those weeds previously listed at 8 thuid ounces of this product alone per acre, use 12 fluid ounces in these tank mixtures.

NOTE: Refer to the specific product labels for crop rotation restrictions and cautionary statements of all products used in tank mixtures. Some crop injury may occur if Banvel is applied within 45 days of planting. The addition of Banvel in a mixture with this product may provide short-term residual control of selected weed species.

Apply 12 to 16 fluid ounces of this product plus 0.25 pound a.i. of Banvel or 0.5 pound a.i. of 2.4-0, plus 0.5 to 1 percent nonionic of the following annual broadleaf weeds when less than the height

Cocklebur (12°) Xanthium strumarium

Kochia* (6*)

Kochia scopana Lambsquarters (12*)

Chenopodium album Lettuce, prickly (6°)

Lactuca serriola

Morningglory (6°) Ipomoea spp.

Pigweed, redroot (12") Amaranthus retroflexus

Pigweed, smooth (12") Amaranthus nybridus Thistle, Russian (12")

Marestail/Horşeweed (6°) Conyza canadensis

*Controlled with Banvel tank mixture only.

Apply 16 fluid ounces of this product plus 0.5 pound a.i. of 2.4-0. plus 0.5 to 1 percent nonionic surfactant by total spray volume per acre to control the following annual broadleaf weeds when less than 6

Ragweed, common Ambrosia artemistifolia

Ragweed, giant Ambrosia trifida Smartweed, Pennsylvania Potygonum pensylvanicum

Salsola _{Kali}

Velvetleaf Abutilon theophrasti

HIGH-VOLUME BROADCAST APPLICATIONS

When applied as directed under the conditions described, this product will control the weeds listed below when water carrier volumes are 10 to 40 gallons per acre for ground applications.

Apply 1 to 1.5 quarts of this product per acre plus 0.5 to 1 percent nonipric surfactant by total spray volume. Use 1 quart per acre if weeds are less than 6 inches tall and 1.5 quarts per acre if weeds are over 6 inches tall. If weeds have been mowed, grazed or cut, allow adequate time for new growth to reach recommended stages prior to treatment. These rates will also provide control of weeds listed in the "LOW-VOLUME BROADCAST APPLICATION" Section.

WEED SPECIES

8aisamappie* Momordica charantia

Bassia, fivehook Bassia hyssopifolia

Brome Bromus spp.

Fiddleneck Amsinckia spp.

Fleabane, hairy Conyta bonariensis

Fleabane Erigeron sop. Kochia

Kochia scoparia Lettuce, prickly

Laciuca seriola

Panicum Рапісит spp.

Ragweed, common Ambrosia artemisiifolia

Ragweed, giant Ambrosia trilida

Smartweed, Pennsylvania Polygonum pensylvanicum

Sowthistle, annual Sonchus cleraceus Sunflower

Helianthus annuus Thistle, Russian Salsola kali

Velvetleaf Abutiton theophiasti

*Apply with hand-held equipment only.

Apply this product as follows to control or destroy most perennial

NOTE: If weeds have been moved or tilled, do not treat until plants have resumed active growth and have reached the recommended

Repeal treatments may be necessary to control weeds regenerating from underground parts or seed. Repeat treatments must be made prior to crop emergence.

The addition of 1 to 2 percent dry ammonium sulfate by weight or 8.5 in 17 mounds nor 100 collings of water may increase the northwarmanne to 17 pounds per 100 gallons of water may increase the performance

of this product on perennial weeds. The improvement in performance may be apparent where environmental stress is a concern. Refer to the "MEXING, ADDITIVES and APPLICATION INSTRUCTIONS" section of

When applied as recommended under the conditions described, this product WILL CONTROL the following PERENNIAL WEEDS:

Medicago sativa

Alligatorweed*

Alternanthera philoxeroides

Anise (fennel)

Foeniculum vulgare

Artichoke, Jerusalem Helianthus tuberosus

Bahiagrass

Paspalum notatum

Bentgrass Agrostis sop.

Bermudagrass

Cynodon dactylon

Bermudagrass, water (knotgrass) Paspalum distichum

Bindweed, field

Convolvulus arvensis

Bluegrass, Kentucky

Poa spp.

Fescue, tall

Blueweed, Texas

Helianthus ciliaris

Brackentern Pteridium aquilinum

Festuca arundinacea Guineagrass

Pancium maximum

Horsenettle

Solanum carolinense

Horseradish

Armoracia rusticana

ice plant

· Mesembryanthemum Crystallinum

Johnsongrass

Sorghum halepense

Kikuyugrass

Pennisetum clandestinum

Клармеев

Centaurea repens

Lanlana

Lantana camara

Lespedeza

Lespedeza spp.

Milkweed

Asclepias spp.

Muhly, wirestein

Muhlenbergia frondonsa

Mullein, common Verbascum thapsus

Napiergrass

Pennisetum purpureum

Bromegrass, smooth Bromus inermis

Bursage, woollyleaf Franseria tomentosa

Canarygrass, reed

Phalaris arundinacea Cattail

Турћа ѕрр. Clover, red Irifolium pratense

Clover, white Tritalium repens

Cogongrass

Imperata cylindrica

Dallisgrass

Paspalum dilatatum

Dandelion

Taraxacum officinale

Dock, curty Rumex crispus

Dogbane, hemp Apocynum cannabinum

Fescues Festuca spp.

Nightshade, silverleaf Solanum eləeagnifolium

Nutsedge; purple, yellow Cyperus rotunous Cyperus esculentus

Orchardgrass Dactylis glomerala

Pampasgrass Cortaderia spp.

Paragrass Brachiaria mulica

Phragmites* Phragmites spp.

Poison hemlock Conium maculatum

Quackgrass Agropyron repens

Redvine* Brunnichia ovata

Reed, giant Arundo donax

Ryegrass, perennial Lalium perenne

Smartweed, swamp Рогудолит сосствит

Spurge, leafy* Euphorbia esula

Starthistle, yellow Centaurea solstitalis Sweet potato, wild*

Ipomoea pandurata

Trumpetcreeper*
Campsis radicans

Thistle, Canada Cirsium arvense Vaseygrass Paspalum urvillei

Thistie, artichoke Cynara cardunculus Yelvetgrass Holcus spp.

Timothy Phleum pratense Wheatgrass, western Agropyron smithii

Torpedograss*

Panicum repens

*Partial Control

This product is not registered in California for use on water bermudagrass.

See "DIRECTIONS FOR USE" and "MOUNG, ADDITIVES and APPLICA-TION INSTRUCTIONS" sections of this tabel for Tabeled uses and specific application instructions.

Altaffa—Apply 1 quart of this product per acre plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. Make application after the last hay cutting in the fall. Allow alfalla to regrow to a height of 6 to 8 inches or more prior to treatment. Applications should be followed with deep tillage at least 7 days after treatment, but before soil freeze-up.

Alligatorweed—Apply 4 quarts of this product per acre or apply a 1.5 percent solution with hand-held equipment to provide partial control. Apply when most of the plants are in bloom. Repeat applications will be required to maintain such control.

Anise (fennel) / Poison hemlock—Apply a 1 to 2 percent solution of this product as a spray-to-wet treatment. Optimum results are obtained when plants are treated at the bud to full-bloom stage of growth. Repeat applications may be needed in succeeding years to control plants ansing from seeds.

Bentgrass—For suppression in grass seed production areas. For ground applications only, apply 1.5 quarts of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 10 to 20 gallons of water per acre. Ensure entire crown area has resumed growth prior to a fall application. Bentgrass should be actively growing and have at least 3 inches of growth. Tillage prior to treatment should be avoided. Tillage 7 to 10 days after application is recommended for best results. Failure to use tillage after treatment may result in unacceptable control.

Bermudagrass—For control, apply 5 quarts of this product per acre. For partial control, apply 3 quarts per acre. Treat when bermudagrass is actively growing and seedheads are present. Retreatment may be before tillage.

Bermudagrass, water (knotgrass)—Apply 1.5 quarts of this product plus 0.5 to 1 percent nonionic surfactant by total spray bermudagrass is actively growing and 12 to 18 inches in length. Allow 1.5 or more days before tilling, flushing or flooding the field.

Fall applications only—Apply 1 quart of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 5 to 10 gallons of water per acre. Fallow fields should be tilled prior to application. Apply prior to itost on water bermudagrass that is actively growing and 12 to 18 inches in length. Allow 7 or more days before tillage.

Bindweed, field—For control, apply 4 to 5 quarts of this product per acre west of the Mississippi River and 3 to 4 quarts east of the Mississippi River and 3 to 4 quarts east of the Albaman and are at or beyond full bloom. Do not treat when weed is under drought results, apply in late summer or fall. Fall treatments must be applied billage.

Also for control, apply 2 quarts of this product plus 0.5 pound a.i. of Banvet in 10 to 20 gallons of water per acre. At these rates, apply using ground application only.

 The following tank mixtures with 2,4-D may be applied using aerial application equipment (except in California) in fallow and reduced tillage systems only.

For suppression on irrigated agricultural land, apply 1 to 2 quarts of this product plus 1 pound a.i. of 2.4-0 in 10 to 20 gallons of water per acre with ground equipment only. Applications should be made following harvest or in fall fallow ground when the bindweed is actively growing and the majority of runners are 12 inches or more in length. The use of at least one irrigation will promote active bindweed growth.

For suppression, apply 16 fluid ounces of this product plus 0.5 pound a.i. of 2,4-D plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre for ground applications and 3 to 5 gallons of water per acre for aerial applications. Applications should be delayed until maximum emergence has occurred and when vines are between 6 to 18 inches in length.

In California only, apply 1 to 5 quarts of this product per acre. Actual rate needed for suppression or control will vary within this range depending on local conditions.

For suppression on irrigated land where annual tillage is performed, apply 1 quart of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. Apply to actively growing bindweed that has reached a length of 12 inches or greater. Allow maximum weed emergence and runner growth. Do not treat when weeds are under drought stress as good soil moisture is necessary for active growth. Allow 3 or more days after application before tillage.

Bluegrass, Kentucky / Bromegrass, smooth / Orchardgrass— Apply 2 quarts of this product in 10 to 40 gallons of water per acrewhen the grasses are actively growing and most plants have reached boot-to-early seedhead stage of development. For partial control in

pasture or hay crop renovation, apply 1 to 1.5 quarts of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gailons of water per acre. Apply to actively growing plants when most have reached 4 to 12 inches in height. Allow 7 or more days after application before tillage.

Orchardgrass (sods going to no-till corn)—Apply I to 1.5 quarts of this product per acre plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. Apply to orchardgrass that is a minimum of 12 inches tall for spring applications and 6 inches tall for fall applications. Allow at least 3 days atrazine will be necessary for optimum results.

Blueweed, Tezas—Apply 4 to 5 quarts of this product per acre west of the Mississippi River and 3 to 4 quarts per acre east of the Mississippi River. Apply when weed is actively growing and is at or beyond full bloom. Do not treat when weed is under drought stress as good soil moisture is necessary for active growth. New leaf development indicates active growth. For best results, apply in late summer or fall. Fall treatments must be applied before a killing frost. Allow 7 growth and the strength of the str

Brackenfern—Apply 3 to 4 quarts of this product per acre as a broadcast spray or as a 1 to 1.5 percent solution with hand-held equipment. Apply to fully expanded fronds which are at least 18 inches long.

Bursage, woollyleaf—For control, apply 2 quarts of this product plus 1 pint of Banvel per acre, for partial control, apply 1 quart of this product plus 1 pint of Banvel per acre. Add 0.5 to 1 percent nonionic surfactant by total spray volume and apply in 3 to 20 gallons of water per acre. Apply when plants are producing new active growth which has been initiated by moisture for at least 2 weeks and when plants are at or beyond flowering.

Canarygrass, reed / Timothy / Whealgrass, western—Apply 2 to 3 quarts of this product per acre. For best results, apply to actively growing plants when most have reached the boot-to-head stage of growth. Allow 7 or more days after application before tillage.

Cogongrass — Apply 3 to 5 quarts of this product plus 0.5 to 1 dercent nonionic surfactant in 10 to 40 gallons of water per acre. Apply when Cogongrass is at least 18 inches tall and actively growing in late summer or fall. Allow 7 or more days after application before tillage or mowing. Due to uneven stages of growth and the dense nature of vegetation preventing good spray coverage, repeat treatments may be necessary to maintain control.

Dandelion / Dock, curly—Apply 3 to 5 quarts of this product per acre when plants are actively growing and most have reached the early bud stage of growth. Allow 7 or more days after application before tillage.

Also for control, apply 16 fluid ounces of this product plus 0.5 pound a.i. 2.4-D plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre.

Dogbane, hemp—Apply 4 quarts of this product per acre. Apply when actively growing and when most weeds have reached the late bud to flower stage of growth. Following crop harvest or mowing, allow weeds to regrow to a mature stage prior to treatment. For best results, apply in late summer or fall. Allow 7 or more days after application before tillage.

For suppression, apply 16 fluid ounces of this product plus 0.5 pound a.i. of 2,4-D plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre for ground applications and 3 to 5 gallons of water per acre for aerial applications. Delay applications until maximum emergence of dogbane has occurred.

Fescue, tall—Apply 3 quarts of this product in 10 to 40 gallons of water per acre to actively growing plants when most have reached boot-to-early seedhead stage of development.

Fall applications only—Apply 1 quart of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. Apply to fescue in the fall when actively growing and application before tillage. A sequential application of 1 pint per acre of and control seedlings germinating after fall treatments or the follow-

Guineagrass—Apply 3 quarts of this product per acre or use a 1 percent solution with hand-held equipment. Apply to actively growing growth, Ensure thorough coverage when using hand-held equipment of more days after application before tillage.

Johnsongrass / Ryegrass, parennial—Apply 1 to 3 quarts of this product per acre. In annual cropping systems apply 1 to 2 quarts of this product per acre. Apply 1 quart of this product per acre. Apply 1 quart of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. In noncrop, or areas when applying 10 to 40 (no.itl) is not performed, apply 2 to 3 quarts of this product in 10 to 40 (apply 10 to 40 t

For burndown of Johnsongrass, apply 1-pint per acre plus 0.5 to 1 percent nonionic surfactant in 3 to 10 gallons of water per acre before the plants reach a height of 12 inches. For this use, allow at least 3 Spot treatment logging.

Spot treatment (partial control or suppression)—Apply a 1 percent solution of this product plus 0.5 to 1 percent nonlonic surfactant by total spray volume when Johnsongrass is 12 to 18 inches in height.

Kikuyugrass.—Apply 2 to 3 quarts of this product per acre. Spray when most kikuyugrass is at least 8 inches in height (3- or 4-leaf stage of growth) and actively growing. Allow 3 or more days after application before tillage.

Knapweed / Horseradish—Apply 4 quarts of this product per acre. Apply when actively growing and when most weeds have reached the late bud to flower stage of growth. Following crop harvest or mowing, allow weeds to regrow to a mature stage prior to treatment. For best results, apply in late summer or fall, Allow 7 or more days after application before tillage.

Lantana—Apply this product as a 1 to 1.25 percent solution using hand-held equipment only. Apply to actively growing lantana at or beyond the bloom stage of growth. Use the higher application rate for plants that have reached the woody stage of growth. Allow 7 or more days after application before tillage.

Milkweed, common—Apply 3 quarts of this product per acre. Apply when actively growing and most of the milkweed has reached the late bud to flower stage of growth. Following small grain harvest or mowing, allow milkweed to regrow to a mature stage prior to treatment. Allow 7 or more days after application before tillage.

Muhly, wirestem—Apply 1 to 2 quarts of this product per acre. Use 1 quart of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. Use 2 quarts of this product when applying 10 to 40 gallons of water per acre or in pasture, sod, or concrep areas. Spray when the wirestem muhly is 8 inches or more in height and actively growing. Oo not till between harvest and fall applications or in the fall or spring prior to spring applications. Allow 3 or more days after application before tillage. This product will not provide residual control of wirestem muhly from seeds which germinate after application of this product. Oo not tank mix with residual herbicides when using the 1 quart per acre rate.

Mightshade, silverleaf—For control, apply 2 quarts of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. Applications should be made when at least 60 percent of the plants have berries. Fall treatments must be before a killing frost. Allow 7 or more days after application soil moisture is necessary for active growth.

Nutsedge: purple, yellow—Apply 3 quarts of this product per acre as a broadcast spray, or apply a 1 to 2 percent solution from hand-nutlets attached to treated plants. Treat when plants and immature when new mutters can be found at rhizome tips. Nutlets which have treatment. Repeat treatments will be required for long-term control of

Sequential applications of 1 to 2 quarts of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre will provide control. Make applications when a majority Repeat this application, as necessary, when newly emerging plants say for long-term control.

for suppression to partial control of existing plants, apply 1 pint to 2 quarts of this product per acre, plus 0.5 to 1 percent nonionic surfactant in 3 to 40 gallons of water per acre. Treat when plants have 3 to 5 leaves and most are less than 6 inches tall flepeat treatments will existing plants. Wait 7 days after treatment before tillage or mowing.

Pampasgrass / Ice plant—Apply this product as a 1.5 to 2 percent solution using hand-held equipment. Apply to plants that are actively growing. Pampasgrass should be at or beyond the boot stage of worth. Thorough coverage is necessary for best control.

Phragmites—For partial control of phragmites in Florida and the counties of other states bordering the Gulf of Mexico, apply 5 quarts per acre as a broadcast spray or apply a 2 percent solution from hand-held equipment. In other areas of the U.S., apply 3 quarts per acre as a broadcast spray or apply a 1 percent solution from hand-held equipment for partial control. For best results, treat during late summer or fall months or when plants are actively growing and in full bloom. Ireatment before or after this stage may lead to reduced control. One to the dense nature of the vegetation, which may prevent good spray coverage or uneven stages of growth, repeat treatments may be necessary to maintain control. Visual control symptoms will be stow to develop.

Quackgrass—In Annual Cropping Systems, or in Pastures and Sods Followed by Deep Tillage: Apply 1 to 2 quarts of this product per acre. For the 1 quart rate, apply 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. For the 2 quart rate, apply in 10 to 40 gallons of water per acre. Do not tank mix with residual herbicides when using the 1 quart rate. Spray when quackgrass is 6 to 8 inches in height and actively growing. Do not till between harvest and fall applications or in fall or spring prior to spring application. Allow 3 or more days after application before tillage. In pastures or sods, for best results use a moldboard plow.

Quackgrass—Pasture or Sod or Other Noncrop Areas Where Deep Tillage is Not Planned Following Application: Apply 2 to 3 quarts in 10 to 40 gallons of water per acre. Spray when the quackgrass is greater than 8 inches tall and actively growing. Do not till between harvest and fall application or in fall or spring prior to spring application. Allow 3 or more days after application before tillage.

Redvine—For suppression, apply 24 fluid ounces of this product per acre at each of two applications 7 to 14 days apart or a single application of 2 quarts per acre. Apply recommended rates in 5 to 10 gations of water per acre plus 0.5 to 1 percent nonionic surfactant by total volume. Apply in late September or early October to actively growing plants, which are at least 18 inches tall and have been growing 43 to 80 days that a page 18 inches tall and have been growing 43 to 80 days that are at least 18 inches tall and have been growing 43 to 80 days that are at least 18 inches tall and have been growing 43 to 80 days that are at least 18 inches tall and have been growing 43 to 80 days that are at least 18 inches tall and have been growing 43 to 80 days that are at least 18 inches tall and have been growing 43 to 80 days that are at least 18 inches tall and have been growing 43 to 80 days that are at least 18 inches tall and have been growing 43 to 80 days that are at least 18 inches tall and have been growing 43 to 80 days that are at least 18 inches tall and have been growing 43 to 80 days that are at least 18 inches tall and have been growing 43 to 80 days that are at least 18 inches tall and have been growing 43 to 80 days that are at least 18 inches tall and have been growing 45 to 80 days that are at least 18 inches tall and have been growing 45 to 80 days that are at least 18 inches tall and have been growing 45 to 80 days that are at least 18 inches tall and have been growing 45 to 80 days that are at least 18 inches tall and have been growing 45 to 80 days that are at least 18 inches tall and have been growing 45 to 80 days that are at least 18 inches tall and that are at least 18 inches tall and that are at least 18 inches tall are at least 18 inches tall and that are at least 18 inches tall are at least 18 inches tall and that are at least 18 inches tall are at le

growing plants, the last tillage operation, Make applications at least 1 week before a killing frost.

Reed, giant—For control of giant reed, apply a 2 percent solution of this product when plants are actively growing. Best results are obtained when applications are made in late summer to fall.

Smartweed, swamp—Apply 3 to 5 quarts of this product per acre when plants are actively growing and most have reached the early tillage.

Also for control, apply 16 fluid ounces of this product plus 0.5 pound active ingredient of 2.4-0 plus 0.5 to 1 percent nonionic surfactant by total volume in 3 to 10 gallons of water per acre in the late summer or fall. Apply when plants are actively growing and most have reached before tillage.

Spurge, leafy—For suppression, apply 16 fluid ounces of this product plus 0.5 pound active ingredient 2,4-D plus 0.5 to 1 percent nonlonic surfactant by total spray volume in 3 to 10 gailons of water per acre in the late summer or fall. Apply when plants are actively of the plants are 12 inches tall. Allow 7 or more days after application Startbert

Starthistle, yellow—Best results are obtained when applications are made during periods of active growth, including the rosette, bolting and early flower stages. For spray-to-wet applications, apply this product as a 2 percent solution, for broadcast applications, apply 2 sweet Bolton and the start of water carrier.

Sweet Polato, wild / Tbistle, artichoke—Apply this product as a 2 percent solution using hand-held equipment. Apply to actively growing weeds that are at or beyond the bloom stage of growth. Repeat applications may be required. Allow the plant to reach the recommended tillage.

Thistle, Canada—Apply 2 to 3 quarts of this product per acre. Apply to actively growing thistles when most are at or beyond the bud stage of growth. After harvest, mowing or tillage in the late summer or fall, allow at least 4 weeks for initiation of active growth and rosette development prior to the application of this product, Fall treatments must be applied before a killing frost. Allow 3 or more days after application before tillage.

For suppression of Canada thistle, apply 1 quart per acre of this product, or 1 pint of this product plus 0.5 pound a.i. 2,4-D per acre, plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre in the late summer or tall after harvest, moving or tillage. Allow rosette regrowth to a minimum of 6 inches in diameter before treating. Applications can be made as long as leaves are still green and plants are actively growing at the time of application. Allow 3 or more days after application before tillage.

Torpedograss -- Apply 4 to 5 quarts of this product per acre to provide partial control of torpedograss. Apply to actively growing torpedograss when most plants are at or beyond the seedhead stage of growth. Repeat applications will be required to maintain control. Fall freatments must be applied before frost. Allow 7 or more days after application before tillage.

Trumpetcreeper---For control, apply 2 quarts of this product per acre in 5 to 10 gallons of water per acre. Apply to actively growing plants in late September or October, which are at least 18 inches tall and have been growing 45 to 60 days since the last tillage operation. Make applications at least 1 week before a killing frost.

Other perennials listed on this tabel-Apply 3 to 5 quarts of this product per acre. Apply when actively growing and most have reached early head or early bud stage of growth. Allow 7 or more days after application before tillage.

WOODY BRUSH AND TREES

When applied as recommended under the conditions described, this product CONTROLS or PARTIALLY CONTROLS the following woody brush, plants and trees:

Alder

Alnus spp.

Ash*

Fraxinus spp.

Aspen, quaking

Populus tremutoides

Bearmat (Bearclover)

Chamaetratia foliolosa

Fagus grandifolia

Birch

Betula spp.

Blackberry

Rubus spp.

Blackgum

Nyssa spp.

Bracken

Peridium spp.

вгоот:

French

Cytisus monspessulanus

Scotch

Cytisus scoparius

Buckwheat, California*

Eriogonum tasciculatum

Cascara*

Rhamnus purshiana

Catsclaw*

Acacia greggi

Ceanothus*

Ceanothus spp.

Chamise

Adenostoma fasciculatum

Cherry:

Bitter

Prunus emarginata

Black

Prunus serotina

Pin

Prunus pensylvanica

Coyote brush

Baccharis consanguinea

Creeper, Virginia*

Parthenocissus quinquefolia

Dewberry

Rubus trivialis

Dogwood*

Cornus spp.

Elderberry

Samburus spp.

Elm* Maple: Ulmus spp. Red** Eucalyptus Acer rubrum Eucalyptus spp. Sugar Gorse Acer saccharum Ulex europaeus Vine* Hasardia* Acer circinatum Haplopappus squamosus Mankey Flower* Hawthorn Mimulus guttatus Crataegus sop. Oak; Hazel Black* Corylus spp. Quercus velutina Hickory* Northern Pin Carya spp. Quercus palustris Holly, Florida/ Past Brazilian Peppertree* Quercus stellata Schinus terepinthifolius Red Honeysuckle Quercus rubra Lonicera spp. Southern Red Hornbeam, American* Quercus falcata Carpinus caroliniana White* Kudzu Quercus alba Pueraria lobata Persimmon* Locust, black+ Diospyros spp. Robinia pseudoacacia Pine Майголе Pinus spp. Arbutus menziesii Poison Ivy Manzanita Rhus radicans Arctostaphylos spp. Poison Oak Rhus toxicodendron Poplar, yellow -Liriodendron tulipilera Sumac: Raspberry Poison* Rubus sop Rhus vernix Redbud, eastern Smooth* Cercis canadensis Rhus glabia Rose, multiflora Winged* Rosa multiflora Rhus copallina Russian-olive Sweetgum Elaeagnus angustifolia Liquidambar styraciflua Sage: black, white Swordfern* Salvia spp. Polystichum munitum Sagebrush, California Tallowtree, Chinese Artemisia californica Sapium sebiferum Salmonberry Tan Oak Rubus spectabilis Lithocarpus densifiorus Salt cedar Thimbleberry Tamarixs spp. Rubus parviflorus Sassafras Tobacco, tree* Sassafras aibidum Nicotiana glauca Trumpetcreeper Sourwood Oxydendrum arboreum Campsis radicans Waxmyrtle, southern* Myrica cerifera Willow

*Partial control

**See below for control or partial control instructions.

Salix spp.

NOTE: If brush has been mowed or tilled or trees have been cut, do not treat until regrowth has reached the recommended stages of

Apply this product when plants are actively growing and, unless otherwise directed, after full leaf expansion. Use the higher rate for larger plants and/or dense areas of growth. On vines, use the higher rate for plants that have reached the woody stage of growth. Best results are obtained when application is made in late summer or fall after fruit formation.

In arid areas, best results are obtained when application is made in the spring to early summer when brush species are at high moisture content and are flowering.

Ensure thorough coverage when using hand-held equipment. Symptoms may not appear prior to frost or senescence with fall treatments.

Allow 7 or more days after application before tillage, moving or removal. Repeat freatments may be necessary to control plants regenerating from underground parts or seed. Some autumn colors on undestrable deciduous species are acceptable provided no major leaf drop has occurred. Reduced performance may result if fall treatments are made following a frost.

See "DIRECTIONS FOR USE" and "MOUNG, ADDITIVES and APPLICA-TION INSTRUCTIONS" sections of this label for labeled uses and specific application instructions.

Apply this product as follows to control or partially control the following woody brush and trees.

Alder / Dewberry / Honeysuckle / Post Oak / Raspberry---For control, apply 3 to 4 quarts per acre of this product as a broadcast spray or as a 1 to 1.5 percent solution with hand-held equipment.

Aspen, quaking / Cherry: bitter, black, pin / Hawtforn / Oak, southern red / Sweetgum / Trumpetcreeper-For control, apply 2 to 3 quarts of this product per acre as a broadcast spray or as a 1 to 1.5 percent solution with hand-held equipment.

Birch / Elderberry / Hazel / Salmonberry / Thimbleberry—For control, apply 2 quarts per acre of this product as a broadcast spray or as a 1 percent solution with hand-held equipment.

Blackberry—For control, apply 3 to 4 quarts per acre of this product as a broadcast spray, or I to 1.5 percent solution with hand held equipment. Make application after plants have reached full leaf maturity. Best results are obtained when applications are made in late summer or fall. After berries have set or dropped in late fall, blackberry can be controlled by applying a 3/4 percent solution of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume with hand-held equipment. For control of blackberries after leaf drop and until killing frost or as long as stems are green, apply 3 to 4 quarts of this product in 10 to 40 gallons of water per acre.

Broom: French, Scotch—For control, apply a 1.5 to 2 percent solution with hand-held equipment

Buckwheat, California / Hasardia / Monkey Flower / Tobacco. tree—For partial control of these species, apply a 1 to 2 percent solution of this product as a foliar spray with hand-held equipment. Thorough coverage of foliage is necessary for best results.

Catsclaw—For partial control, apply as a 1 to 1.5 percent solution with hand-held equipment.

Coyote Brush—For control, apply a 1.5 to 2 percent solution with hand-held equipment when at least 50 percent of the new leaves are

Eucalyptus—For control of eucalyptus resprouts, apply a 2 percent solution of this product with hand-held equipment when resprouts are 6 to 12 feet tall. Ensure complete coverage. Apply when plants are growing actively. Avoid application to drought-stressed plants.

Kudzu—For control, apply 4 quarts of this product per acre as a broadcast spray or as a 2 percent solution with hand-held equipment. Repeat applications will be required to maintain control.

Madrone resprouts—For suppression or partial control, apply a 2 percent solution of this product to resprouts less than 3 to 6 feet tall. Best results are obtained with spring/early summer treatments.

Maple, red—For control, apply as a 1 to 1.5 percent solution with hand-held equipment when at least 50 percent of the new leaves are fully developed. For partial control, apply 2 to 4 quarts of this product per acre as a broadcast spray.

Mapte, sugar / Oak, northern pin / Oak, red-For control, apply as a 1 to 1.5 percent solution with hand-held equipment when at least 50 percent of the new leaves are fully developed.

Poison lwy / Poison Oak—For control, apply 4 to 5 quarts of this product per acre as a broadcast spray or as a 2 percent solution with hand-held equipment. Repeat applications may be required to maintain control. Fall treatments must be applied before leaves lose green

Rose, multiflora—For control, apply 2 quarts of this product per acre as a broadcast spray or as a 1 percent solution with hand-held equipment. Treatments should be made prior to leaf deterioration by leaf-feeding insects.

Sage, black / Sagebrush, Cafifornia / Chamise / Tallowtree, Chinese—For control of these species, apply a 1 percent solution of this product as a foliar spray with hand-held equipment. Thorough coverage of foliage is necessary for best results.

Fan oak resprouts-For suppression or partial control, apply a 2 percent solution of this product to resprouts less than 3 to 6 feet tall. Best results are obtained with fall applications.

Willow—For control, apply 3 quarts of this product per acre as a broadcast spray or as a 1 percent solution with hand-held equipment.

Other Woody Brush and Trees listed on this label-For partial control, apply 2 to 5 quarts of this product per acre as a broadcast spray or as a 1 to 2 percent solution with hand-held equipment.

NONCROP USES

See "GENERAL INFORMATION" and "MIXING, ADDITIVES and APPLI-CATION INSTRUCTIONS" sections of this label for essential product performance information and the following "NONCROP" sections for specific recommended uses.

EXTREME CARE MUST BE EXERCISED TO AVOID CONTACT OF SPRAY WITH FOLIAGE, GREEN STEMS, EXPOSED NON-WOODY ROOTS OR FRUIT OF CROPS, DESIRABLE TUREGRASSES, TREES, SHRUBS OR OTHER DESIRABLE VEGETATION SINCE SEVERE DAMAGE OR DESTRUCTION MAY RESULT.

Repeat treatments may be necessary to control weeds regenerating from underground parts or seeds.

Where repeat applications are necessary, do not exceed 10.6 quarts of this product per acre per year.

This product does not provide residual weed control. For subsequent weed control, follow a label-approved herbicide program.

Read and carefully observe the cautionary statements and all other information appearing on the labels of all herbicides used.

INDUSTRIAL, RECREATIONAL AND PUBLIC AREAS

When applied as directed for "NONCROP USES," under conditions described, this product controls annual and perennial weeds listed on this label growing in areas such as airports, dilth banks, dry ditches, dry canals, fencerows, golf courses, highways, industrial plant sites, lumber yards, parking areas, parks, petroleum lank farms and pumping installations, pipelines, power and telephone rights-of-way, railroads, roadsides, schools, storage areas, utility substations, other public areas and similar industrial or noncrop areas.

For specific rates of application and instructions for control of various annual and perennial weeds and woody brush and trees, see the "WEEDS CONTROLLED" section of this label.

This product may be applied with recirculating sprayers, shielded applicators, or wiper applicators in any noncrop site specified on this label. See the Selective Equipment part of "APPLICATION EQUIPMENT and TECHNIQUES" section of this label for information on proper use and calibration of this equipment.

TANK MIXTURES FOR INDUSTRIAL SITES AND FORESTRY SITE PREPARATIONS

MIRAGE® plus OUSTIN

Use on industrial sites including airports, industrial plants, lumberyards, petroleum tank farms, pumping stations, railroads, roadsides, storage areas or other similar sites where bare ground is desired.

This tank mixture may also be used as a site preparation treatment for sites to be planted to jack pine, loblotly pine, red pine, slash pine and Virginia pine. When applied as directed for "NONCROP USES" under the conditions described, this product plus Oust provides control of annual weeds listed in the "WEEDS CONTROLLED" section of the label for this product and Oust, and control or partial control of the perennial weeds listed below.

Apply 1 to 2 quarts of this product with 2 to 4 ounces of Gust in 10 to 40 gallons of spray solution per acre as a broadcast spray to actively growing weeds.

This mixture may be applied by aerial equipment in site prep operations. When applied by air, use the recommended rates in 5 to 15 galions of spray solution per acre.

This product plus Oust tank mixtures may not be applied by air in

For control of annual weeds, use the lower rates of these products. For control of the listed perennial weeds, use the higher rates of both products. For partial control, use the lower rates.

Bahiagrass

Paspalum notatum

**azasyndol

Sorghum halepense

Bermudagrass* Cynodon dactylon

Poorjoe**

Broomsedge

Diodia teres

Andropogon virginicus

Quackgrass :

Dock curty

Agropyron repens

Rumex crispus

Trumpetcreeper* Campsis radicans

Dogiennei

Vaseygrass

Eupatorium capilliforium

Paspalum urvillei

Fescue, tall

Festuca arundinacea

Vervain, blue Verbena hastata

*Suppression at the higher rates only.

**Control at the lower rates.

Read and carefully observe the cautionary statements and all other information appearing on the labels of all herbicides used.

TANK MIXTURES NONCROP SITES

When applied as a tank mixture, this product provides control of the emerged annual weeds and partial control of the emerged perennial weeds listed in this label. When applied as a Lank mixture, the following residual herbicides will provide preemergence control of the weeds listed in the individual product labels.

MIRAGE plus SIMAZINE 80W
MIRAGE plus SURFLANIM 75W

MIRAGE plus SURFLAN AS

When tank mixing with residual herbicides, add an agriculturally approved nonionic surfactant at 0.5 to 1 percent by volume of spray solution. See the "MIXING, ADDITIVES and APPLICATION INSTRUCTIONS" section of this label before preparing these tank mixtures.

Read and carefully observe the label claims, cautionary statements, recommended use rates and all other information on the labels of all products used in these tank mixtures. Use according to the most restrictive label directions for each product in the mixture.

CONTROL OF EMERGED WEEDS

NOTE: For backpack sprayer and handgun applications, see the "HAND-HELD AND HIGH VOLUME EQUIPMENT" section for recommended rates.

Annual Weeds—Apply 1 quart per acre of this product in these tank mixtures when weeds are less than 6 inches tall and 1.5 quarts per acre when weeds are more than 6 inches tall.

Perennial Weeds—For partial control of perennial weeds using these tank mixtures, apply 2 to 5 quarts per acre of this product. Follow the recommendations in the "WEEDS CONTROLLED" section of this label for stage of growth and rate of application for specific perennial weeds.

PREEMERGENCE WEED CONTROL

For preemergence weed control, refer to the individual product labels for specific noncrop sites, rates, carrier volumes and precautionary statements.

Mix only the quantity of spray solution which can be used during the same day. Do not allow these tank mixtures to stand overnight as this may result in reduced weed control.

FARMSTEAD WEED CONTROL

When applied as directed for "NONCROP USES", under conditions described, this product controls undestrable vegetation listed on this label around farmstead building foundations, along and in fences, shelterbelts and for general nonselective farmstead weed control.

For specific rates of application and instructions for control of various annual and perennial weeds, see the "WEEDS CONTROLLED" section of this label.

FARM DITCHES

This product will suppress perennial grasses along farm ditches. Apply this product at a rate of 6 to 8 fluid ounces per acre. Use 8 fluid ounces per acre when treating tall (coarse) fescue, line fescue, orchardgrass or quackgrass covers. For best suppression of these species, add ammonium sulfate at a rate of 1.7 pounds per 10 gallons of spray solution. Use 6 fluid ounces per acre without ammonium sulfate when treating Kentucky bluegrass.

Apply treatments in 10 to 20 gallons of spray solution per acre to actively growing perennial grass covers. For best spray distribution and coverage, use flat fan nozales.

Add a nonionic surfactant at a rate of 0.5 percent of the spray solu-

Where broadleaf weed control or suppression is desired, tank mix this product with an appropriate, labeled broadleaf weed herbicide.

CONSERVATION RESERVE PROGRAM (CRP ACRES)

This product can be used to control undesirable vegetation when rotating out of CRP acres or to suppress competitive growth and seed production of undesirable vegetation in CRP acres.

For specific rates of application for various annual and perennial weeds, see the "WEEDS CONTROLLED" section of this label.

CRP applications may be made with wiper applicators or conventional

For selective applications with broadcast spray equipment, apply 12 to 16 ounces per acre of this product in early spring before desirable CRP grasses, such as crested and tall wheatgrass, break dormancy and initiate green growth. Late fall applications can be made after desirable perennial grasses have reached dormancy. Some stunting of CRP perennial grasses will occur if applications are made when plants are not dormant.

HABITAT MANAGEMENT

This product is recommended for the restoration and/or maintenance of native habitats and in wildlife management areas. Apply as recommended in the "NONCROP USES" section of this label.

Habitat Restoration and Maintenance—When applied as directed, exotic and other undesirable vegetation may be controlled in habitat management areas. Applications can be made to allow recovery of native plant species, prior to planting desirable native species, and for similar broadspectrum vegetation control requirements in habitat

management areas. Spot treatments can be made to selectively remove unwanted plants for habitat maintenance and enhancement. For spot treatments, care should be exercised to keep spray off of desirable plants.

Wildlife Food Plots—This product may be used as a site preparation treatment prior to planting wildlife food plots. Any wildlife food species may be planted after applying this product, or native species may be allowed to repopulate the area. If tillage is needed to prepare a seedbed, wait 7 days after applying this product before tilling.

ORNAMENTALS, TREE NURSERIES AND CHRISTMAS TREES

THIS PRODUCT IS NOT RECOMMENDED FOR USE AS AN OVER-THE-TOP BROADCAST SPRAY IN ORNAMENTALS AND CHRISTMAS TREES.

NOTE: Desirable plants may be protected from the spray solution by using shields or coverings made of cardboard or other impermeable material.

When applied as instructed for the conditions described for "NON-CROP USES, this product controls undesirable vegetation listed on this label prior to planting, within and around greenhouses and shadehouses, and as a postdirected spray around established ornamentals and Christmas trees.

For specific rates of application and instructions for control of various annual and perennial weeds, see the "WEEDS CONTROLLED" section of this label.

Where repeat applications are necessary, do not exceed 10.6 quarts of this product per acre per year.

Site Preparation—Following preplant applications of this product, any ornamental, nursery species or Christmas tree species may be planted. Precautions should be taken to protect nontarget plants during site preparation applications.

Greenhouse / Shadehouse Use—This product may be used to control weeds listed on this label which are growing in greenhouses. / Desirable vegetation must not be present during application and air circulation fans must be turned off.

Postdirected Spray.—Use as a postdirected spray around established woody ornamental species, nursery species or Christmas trees such as those listed below. Care must be exercised to avoid contact of spray, drift or mist with foliage of or green bank of established ornamental species.

Arborvitae

Thuja sop.

Azalea

Rhododendron spp Boxwood

Buxus spp.

Crabapple Malus spp.

Euonymus Euonymus spp.

Fir

Abies spp. Pseudotsuga spp

Jojoba Siggranda

Simmondsia chinensis Hollies

llex spp.

Litac

Sytinga spp.

Magnolia

Magnolia spp.

Maple Acer spp.

Oak
Quercus sop.

Privet

Ligustrum spp.

Pige Biggs 6

Pinus spp. Spruce

Picea spp. Yew

Taxus spp.

SILVICULTURAL SITES and RIGHTS-OF-WAY

NOTE: NOT RECOMMENDED FOR USE AS AN OVER-THE-TOP BROAD-CAST SPRAY IN SILVICULTURAL NURSERIES.

When applied as directed for "NONCROP USES" under conditions described, this product controls undesirable vegetation listed on this label. This product also suppresses or controls undesirable vegetation listed on this label when applied at recommended rates for release of established coniferous species listed on this label.

For specific rates of application and instructions for control of various brush, annual and perennial weeds, see the "WEEDS CONTROLLED" section of this label. For specific rates of application for release of listed coniferous species, see the "CONIFER RELEASE" part of this section of the label.

Where repeat applications are necessary, do not exceed 10.6 quarts of this product per acre per year.

Aerial Application—This product may be applied using aerial spray equipment for silvicultural site preparation, conifer release and rights-of-way treatments. See the "APPLICATION EQUIPMENT and TECHNIQUES" part of the "MIXING, ADDITIVES and APPLICATION INSTRUCTIONS" section of this label for information on how to apply this product by air.

DO NOT APPLY THIS PRODUCT BY AIR TO RIGHTS-OF-WAY SITES IN THE STATE OF CALIFORNIA.

To reduce the aerial application drift hazard to aquatic sites*, to nontarget sites or any site containing desirable vegetation, always mainlain appropriate buffer zones. A buffer zone of the following minimum distances should be maintained:

 Helicopters using a Microfoil[™] boom, a Thru-Valve[™] boom (TYB-45), or equivalent drift control systems, should maintain at least a 50-foot buffer zone.

- When using other aerial equipment:
- 1. Maintain at least a 75-foot buffer zone for applications using 2 quarts or fess per acre of this product.
- 2. Maintain at least a 125-foot buffer zone for applications using more than 2 quarts per acre of this product.
- 3. Maintain at least a 400-foot buffer zone for applications on rights-of-way when applied from 75 feet or more above ground

These distances should be increased if conditions favoring drift exist.

*Aquatic sites include all lakes, ponds and streams used for significan't domestic purposes or angling.

SITE PREPARATION

Following preplant applications of this product, any silvicultural species may be planted.

POSTDIRECTED SPRAY

In established silvicultural sites, use as a spray on the foliage of undestrable vegetation. Care must be exercised to avoid contact of spray, drift or mist with foliage or green bank of desirable species.

CONIFER RELEASE

For release, apply only where conifers have been established for more than one year. Vegetation should not be disturbed prior to treatment or until visual symptoms appear after treatment. Symptoms of treatment are slow to appear, especially in woody species treated in late fall. Injury may occur to conifers treated for release, especially where spray patterns overlap or the higher rates are applied or when applications are made during periods of active conifer growth. Do not use additional surfactant with conifer release applications.

Applications must be made after formation of final conifer resting buds in the fall or prior to initial bud swelling in spring. Some autumn colors on undesirable deciduous species are acceptable provided no

major leaf drop has occurred. Use the following rates for conifer release to control or partially control the weeds listed in the "WEEDS CONTROLLED" section of this label.

For release of the following coniter species:

Douglas fir

Pines*

Pseudotsuga menziesii

Pinus son

Fіг

Spruce

Abies spp.

Picea spp.

Hemlock

Tsuga spp.

*Includes all species except eastern white pine, lobfolly pine or slash

Apply 1.5 to 2 quarts of this product per acre except in Washington and Oregon, west of the crest of the Cascade Mountains. For spring treatments west of the crest of the Cascade Mountains, apply L quart of this product per acre before conifer bud swell for control of annual weeds. For fall treatments in Washington and Oregon, west of the crest of the Cascade Mountains, apply 1 to 1.5 quarts of this product per acre before any major leaf drop of deciduous species.

For release of western hemlock, apply $1\ \mathrm{quart}$ of this product per

For release of the following conifer species:

Labfally pine Pinus taeda

Stash oine Pinus elliattii

Eastern white pine

Pinus strobus

Late Season Application—Apply 1.5 to 2 quarts of this product in a minimum of 5 gallens of spray solution per acre during early autumn. Applications made prior to September 1 or when conditions are conducive to rapid growth of conifers will create the potential for increased injury in the form of tip and/or needle burn. Injury may

decrease with later applications. Some autumn colors are acceptable at time-of application. Apply prior to frost or leaf drop of undesirable plants. Applications made according to label directions will release tobiolly pine, eastern white pine and slash pine by reducing competition from the following species:

Fraxinus spp.

Cherry: Black

Prunus serolina

Pin Prunus pensylvanica

Elm

Ulmus spp.

Hawthorn Crataegus spp.

Locust, black Robina pseudoacacia

Maple, red Acer rubra

Oak: 8lack

Quercus velutina

Post

Ouercus stellata

Southern Red Quercus falcata White

Quercus alba

Persimmon Diospyros spp.

Poptar, yellow Liriodendron tuliptera

Sassatras

Sassairas albidum

Sourwood

Oxydendrum arboreum

Sumac: Poison

Rhus vernix

Smooth Rhus glabra Winged

Rhus copallina

Sweetgum

Liquidambar styraciflua .

Apply only to those sites where woody brush and trees listed in this label constitute the majority of the undesirable species.

MIRAGE® plus OUST TANK MIXTURES FOR CONIFER RELEASE FROM HERBACEOUS WEEDS

To release toblotly pines from herbaceous weeds, tank mixtures of this product with Oust will provide control of annual weeds listed in the "WEEDS CONTROLLED" section of this and the Oust label, and partial control of the perennial weeds listed below.

Apply 16 to 24 fluid ounces of this product with 2 to 4 ounces of Oust in 10 to 30 gallons of spray solution per acre. Make application to actively growing weeds as a broadcast spray over the top of the young

This product plus Oust tank mixtures may not be applied by air in

This tank mixture may be applied using aerial equipment. When applying by air, use the recommended rate in 5 to 15 gallons of spray

For control of annual weeds below 12 inches in height (or runner length on annual vines), use the lower rates of both products. Use the higher rates of both products when annual weeds are in more advanced stages of growth and approaching flower or seed formation.

Use the higher rates of both products for partial control of the following perennial weeds. Use the lower rates for suppression of growth.

Bahiagrass

Paspalum notatum

Broomsedge Andropogon virginicus

Dock curly Rumex crispus

Doglennel Eupatorium capillitorium

Fescue, tall Festuca arundinacea Johnsongrass*

Sorghum halepense Poorjoe*

Diodia teres

Trumpetcreeper** Campsis radicans

Vaseygrass :

Paspalum urvillei Vervain, blue Verbena hastata

- *Control at the higher rates.
- **Suppression at the higher rates only.

Pioe damage may occur or can be accentuated if treatment takes place when young trees are under stress from drought, flood water,

Read and observe the cautionary statements and all other information appearing on the labels of all herbicides used.

NOTE TO USER

This product must not be used in areas where adverse impact on federally designated endangered/threatened plant or aquatic species

Prior to making applications, the user of this product must determine that no such species are located in or immediately adjacent to the area to be treated.

CUT STUMP TREATMENTS

Woody vegetation may be controlled by treating freshly cut stumps of trees and resprouts with this preduct. Apply this product using suitable equipment to ensure coverage of the entire cambium. Cut vegetation close to the soil surface. Apply a 50 to 100 percent solution of this product to the freshly-cut surface immediately after cutting. Delays in application may result in reduced performance. For best results, applications should be made during periods of active growth and full leaf expansion.

When used according to directions for cut stump application, this product witl CONTROL, PARTIALLY-CONTROL or SUPPRESS many types of woody brush and tree species, some of which are listed below:

Alder

Madrone

Alnus spp.

Arbutus menziesii

Eucalyptus Eucalyptus spp. 0ak

Quercus spp.

Reed, giant

Tan Oak

Arundo donax

Lithocarous densiflorus

Saltcedar

Willow

Tamarisk spp

Salix spp.

Sweetgum

Liquidambar styraciflua

INJECTION AND FRILL APPLICATIONS

Woody vegetation may be controlled by injection or frill application of this product. Apply this product using suitable equipment which must penetrate into the living tissue. Apply the equivalent of 1 ml of this product per each 2 to 3 inches of trunk diameter (DBH). This is best achieved by applying a 50 to 100 percent concentration of this material either to a continuous frill around the tree or as cuts evenly spaced around the tree below all branches. As tree diameter increases in size, better results are achieved by applying diluted material to a continuous frill or more closely spaced cuttings. Avoid application techniques that allow runoff to occur from frill or cut areas in species that exude sap freely after frills or cutting. In species such as this, make frill or cut at an oblique angle so as to produce a cupping effect and use undiluted material. For best results, application should be made during periods of active growth and after full leaf expansion.

This treatment WILL CONTROL the following woody species:

Dak

Sweetmin

Liquidambar styraciflua

Quercus spp. -Poplar

Sycamore

Populus spp.

Platanus occidentalis

This treatment WILL SUPPRESS the following woody species:

8lack gum

Hickory

Nyssa sylvatica

Carya spp.

Dogwood

Maple, red

Cornus spp.

Acer rubrum

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TURFGRASSES AND GRASSES FOR SEED PRODUCTION

PREPLANT AND RENOVATION

When applied as directed for "NONCROP USES", under conditions described, this product controls most existing vegetation prior to the planting or renovation of either turfgrasses or grass seed production areas.

For specific rates of application and instructions for control of various annual and perennial weeds, and woody brush and trees, see the "WEEDS CONTROLLED" section of this label.

For maximum control of existing vegetation, delay planting to determine if any regrowth from escaped underground plant parts occurs. Where repeal treatments are necessary, sufficient regrowth must be attained prior to application. For warm-season grasses, such as bermudagrass, summer or fall applications provide best control.

OO NOT DISTURB SOIL OR UNDERGROUND PLANT PARTS BEFORE TREATMENT. Tillage or renovation techniques such as vertical mowing, coring or slicing should be delayed for 7 days after application to allow proper translocation into underground plant parts.

TURFGRASSES

Where existing vegetation is growing in a field or unmowed situation, apply this product to actively growing weeds at the stages of growth listed in the "WEEDS CONTROLLED" section of this label.

Where existing vegetation is growing under mowed turigrass management, apply this product after omitting at least one regular moving to allow sufficient growth for good interception of the spray.

Desirable turigrasses may be planted following the above procedures.

GRASSES FOR SEED PRODUCTION

Apply this product to actively growing weeds at the stages of growth recommended in the "WEEOS CONTROLLED" section of this label

prior to planting or renovation of turf or forage grass areas grown for seed production.

DO NOT feed or graze treated areas within 8 weeks after application.

ANNUAL WEED CONTROL IN DORMANT BERMUDAGRASS AND BAHIAGRASS TURF

When applied as directed for "NONCROP USES" under the conditions described, this product will provide control or suppression of many winter annual weeds and tall fescue for effective release of dormant bermudagrass and bahiagrass turf. Refer to the rate table for Mirage alone under the "RELEASE OF BERMUDAGRASS and BAHIAGRASS" section of this label for recommended rates and volumes on the species to be suppressed or controlled. Treat only when turf is dormant and prior to spring greenup. Spot treatments or broadcast applications of this product in excess of 16 fluid ounces per acre may result in injury or delayed greenup in highly maintained turfgrass areas; i.e., golf courses, tawns, etc. DO NOT APPLY TANK MIXTURES of this product plus Oust in highly maintained turfgrass areas.

RELEASE OF BERMUDAGRASS OR BAHIAGRASS

NOTE: Use only in areas where bermudagrass or bahiagrass are desirable ground covers and where some temporary injury or discoloration can be tolerated. Use tank mixtures of this product plus Oust only on railroads, highways, utility plant sites, or other right-of-way areas,

When applied as directed for "NONCROP USES" under the conditions described, this product will provide control or suppression of many winter annual weeds and tall fescue for effective release of dormant bermudagrass or bahiagrass. This product may be tank-mixed with Oust as recommended for residual control. Make applications to dormant bermudagrass or bahiagrass. Tank mixtures of this product plus

Oust may delay greenup. To avoid delays in greenup and minimize injury, do not add more than 1 ounce per acre of Oust on bermudagrass or more than 0.5 ounce per acre on bahiagrass, or treat when these grasses are in a semi-dormant condition.

For best results on winter annuals, treat when plants are in an early growth stage (below 6 inches in height) after most have germinated. For best results on tall fescue, treat when fescue is in or beyond the 4- to 6-leaf stage.

WEEDS CONTROLLED

Rate recommendations for control or suppression of winter annuals and tall fescue are listed below:

Apply the recommended rates of this product alone or as a tank mixture in 10 to 25 gallons of water, plus 0.5 to 1 percent nonionic surfactant by total spray volume per acre.

For the best recommendation for the mixture of weeds within your geographic area, contact your United Ag. Products representative.

WEEDS CONTROLLED OR SUPPRESSED WITH MIRAGE® ALONE*

 $\begin{array}{ll} \text{NOTE:} & \textbf{C} = \textbf{Control} \\ \textbf{S} = \textbf{Suppression} \end{array}$

		Mir	age® f	LUID ()Z/ACR	£
WEED SPECIES	8	12		24		
Barley, little <i>Hordeum pusilium</i>	S	С	С	С	С	С
Bedstraw, catchweed Galium aparine	\$	С	C	С	C	c
Bluegrass, annual Poa annua	S	C	C	С	С	С
Chervil						_
Chaerophyllum tainturieri	S	С	С	С	C	C
Chickweed, common Stellaria media	S	С	С	С	С	C
Clover, crimson Trifolium incarnatum	•	S	S	С	c	· c
Clover, large hop Trifolium campestre	•	S	S	C	c	С
Fescue, tall Festuca arundinaceae	•	•	•	٠	\$.	
Geranium, Carolina Geranium carolinianum	•	•	\$	S	С	С
Henbit Lamium amplexicaule	•	S	C	C	С	С
Ryegrass Italian <i>Lolium multillorum</i>			s	С	С	С
Speedwell, corn Veronica arvensis	\$	С	С	c	C	С
Vetch, common Vicia sativa	•	•	Š	c	С	С

^{*}These rates apply only to sites where an established competitive turl is present.

WEEDS CONTROLLED OR SUPPRESSED WITH MIRAGE® PLUS OUST*

NOTE: C = Control

S = Suppression

				Mirag	e® ÷	- Ous	:	
EO	Mirage (FL. OZ/A)	8 +	12 +	12 ÷	16 ÷	16 ÷	12 +	16 +
ECIES	OUST (OZ/A)	4	1/1	1/2	ý,	1/2	ĺ	i
rley, lit lordeum	lle) pusilium	C	C	Ċ	C	C	С	С
dstraw. Jalium a	catchweed parine	С	С	С	C	С	C	С
uegrass bal <i>ann</i> i	, annual Ja	S.	С	С	Ċ	С	С	C
iervil <i>haerop</i> i	hyllum tainturieri	C	С	C	C	C	C	C
ickwee itellaria	d, common media	S	C	C	C	С	¢	C
over, cri irifolium	imson incarnatum	\$	\$	2	S	¢	C	С
	rge hop campestre	٠	٠	\$	2	S	С	С
scue, ti estuca	all arundinaceae	•	•	٠	•	•	S	\$
	i, Carolina In carolinianum	•	S	S	С	C	С	C
enbit amium	amplexicaule	٠	S	C	С	C	C	C
	, Italian nultiflorum	•	S	\$	С	С	C	C
Geranius enbit Amium regrass	n carolinianum amplexicaule , Italian	•	s	С	С	С	С	

Speedwell, corn Veronica arvensis	S	С	C	С	С	С	С
Vetch, common Vicia sativa	C	С	С	С	C	C	C

^{*}These rates or mixtures of rates apply only to sites where an established competitive turf is present.

RELEASE OF ACTIVELY GROWING BERMUDAGRASS

When applied as directed, this product will aid in the release of bermudagrass by providing control of annual species listed in the "WEEDS CONTROLLED" section of this and the Oust label, and suppression or partial control of certain perennial weeds.

For control or suppression of those annual species listed on this label, use 1 to 3 pints of this product as a broadcast spray in 10 to 25 gallons of spray solution per acre. Use the lower rate when treating annual weeds below 6 inches in height (or length of runner in annual vines). Use the higher rate as weeds increase in size or as they approach flower or seedhead formation.

Use the higher rate of this product for partial control of the following perennial species. Use the lower rates for suppression of growth. For best results, see the "WEEDS CONTROLLED" section of this label for proper stage of growth.

Bahiagrass

Paspalum notatum

*azergnozndol

Sorghum halepense

Bluestem, silver

Andropogon saccharoides

Trumpetcreeper** Campsis radicans

Fescue, tall Festuca arundinacea

Vaseygrass

*Control at the higher rates.

Paspalum urvillei

**Suppression at higher rates only.

This product may be tank-mixed with Oust. If tank-mixed, use no more than I to 2 pints per acre of this product with 1 to 2 punces of

Use the lower rates of both mixtures to control annual weeds below $\boldsymbol{\theta}$ inches in height (or runner length in annual vines) that are listed in the "WEEDS CONTROLLED" section of this booklet and the Oust label. Use the higher rates as annual weeds increase in size and approach the flower or seedhead stages.

Use the higher rates of this product to provide partial control of the following perennial weeds. Use the lower rates for suppression of growth.

Bahiagrass Paspalum notatum

lohnsongrass* Sorghum halepense

Bluestem, silver Andropogon saccharoides Poorjoe** Diodia teres

Broomsedge Andropogon virginicus Trumpetcreeper* Campsis radicans

Dock curty Rumex crispus **Vaseygrass** Paspalum urvillei

Dogtennel

Vervain, blue

Eupaterium capilliforium

Verbena hastata

Fescue, tall

Festuca arundinacea

- *Suppression at higher rates only.
- * *Control at the higher rates.

tise only on well-established bermudagrass. Bermudagrass injury may result from the trealment but regrowth will occur under moist conditions. Repeat applications in the same season are not recommended, since severe injury may result.

Read and carefully observe the cautionary statements and all other information appearing on the labels of all herbicides used.

COOL SEASON TURF GROWTH REGULATION

When applied as directed, this product will suppress growth and seedhead development of listed turf species in industrial sites.

This product is recommended for management of coarse turf on roadside rights-of-way or other industrial areas. Do not use on high-quality lurf or other areas where some turf color changes cannot be tolerated. Slight turf discolaration may occur but turf will regreen and regrow under moist conditions as effects of this product wear off.

Apply 4 to 6 fluid ounces of this product per acre alone or in a recommended tank mixture. Spray volumes of 10 to 40 gallons per acre are

When using this product, mix 2 quarts of a nonionic surfactant per 100 gallons of spray solution.

This product can be used for growth and seedhead suppression of:

Tall Fescue Smooth Brome

For best results, apply this product in a recommended tank mixture to actively growing turigrasses after greenup in the spring of the year. For suppression of seedheads, applications must be made before boot-to-seedhead stage of development. Applications made from seedhead emergence until maturity may result in turl discoloration or

After mowing or removal of seedheads, this groduct in a recommended tank mixture may also be used to suppress the growth of certain turigrasses. Allow turf to recover from stress caused by heat, drought or mowing before making applications. Applications made to furf under stress may increase the potential for discoloration or injury.

ANNUAL GRASSES

For growth suppression of some annual grasses such as annual ryegrass, wild barley and wild oats, apply 3 to 4 fluid ounces of this product in 10 to 40 gallons of spray solution per acre. Applications should be made when annual grasses are actively growing and before the seedheads are in the boot stage of development. Treatments made after seedhead emergence may cause injury to the desired grasses.

TANK MIXTURES

For the following tank mixtures, consult each product label for weeds controlled and the correct stage of application. Do not treat turi under stress.

Tank mixtures plus 2.4-D Amine

For additional weed control benefits, up to 1 pound a.i. per acre of 2.4-D amine may be added to the following tank mixtures. Consult the label for 2.4-D amine for weeds controlled.

TALL FESCUE

Mirage plus Telar™

For suppression of tall fescue growth and seedheads, and control or partial control of some annual weeds, apply this tank mixture after greenup and prior to boot-to-seedhead stage of development. Use up to 0.5 counce of Telar per acre.

This tank mixture can also be applied after mowing or removal of tall fescue seedheads for turf growth suppression. Make only one of the above applications per growing season.

Mirage plus Oust

For suppression of tall fescue growth and seedheads, and control or partial control of some annual weeds, apply this tank mixture after greenup and prior to boot-to-seedhead stage of development. Use up to 0.25 ounce of Oust per acre.

Mirage plus Escort™

This tank mixture can be applied after mowing or removal of tall fescue seedheads for furl growth suppression and control or partial control of some annual weeds. Use up to 1/3 cunce of Escort per acre.

SMOOTH BROME

Mirage plus Oust

For suppression of smooth brome growth and seedheads and control or partial control of some annual weeds, apply this tank mixture after greenup and prior to boot-to-seedhead stage of development. Use up to 0.25 ounce of Oust per acre.

BAHIAGRASS SEEDHEAD AND VEGETATIVE SUPPRESSION

When applied as directed in the indicated noncrop areas (roadsides, airports, golf course roughs, and plant sites), this product will provide significant inhibition of seedhead emergence and will suppress vegetative growth for a period of approximately 45 days with single applications and approximately 120 days with sequential applications.

Apply this product 1 to 2 weeks after full greenup of bahiagrass or after the bahiagrass has been mowed to a uniform height of 3 to 4 inches. Applications must be made prior to seedhead emergence. Apply 6 fluid ounces per acre of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 10 to 25 gallons of water per acre.

Sequential applications of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume may be made at approximately 45 day intervals to extend the period of seedhead and vegetative growth suppression. For continued seedhead suppression, sequential applications must be made prior to seedhead emergence. Apply no more than 2 sequential applications per year. As a first sequential application, apply 4 fluid ounces of this product per acre plus nonionic surfactant. A second sequential application of 2 to 4 fluid ounces per

acre plus nonionic surfactant may be made approximately 45 days after the last application.

A tank mixture of this product plus Oust may be applied only on roadsides for seedhead inhibition and vegetative suppression. Apply 6 fluid ounces per acre of this product plus 0.25 ounce per acre of Oust, plus 0.5 to 1 percent nonionic surfactant by total spray volume 1 to 2 weeks following an initial spring mowing. When using this product plus Oust for suppression of bahiagrass, make only 1 application per year.

CROPPING SYSTEMS

When applied as directed for "CROPPING SYSTEMS", under the conditions described, this product controls annual and perennial weeds listed on this labet, prior to the emergence of direct seeded crops or prior to transplanting of crops listed on this labet.

See "GENERAL INFORMATION" and "MIXING, ADDITIVES and APPLI-CATION INSTRUCTIONS" sections of this label for essential product performance information.

See the following "CROPPING SYSTEMS" sections for specific recommended uses.

EXTREME CARE MUST BE EXERCISED TO AVOID CONTACT OF SPRAY WITH FOLIAGE, GREEN STEMS OR FRUIT OF DESIRABLE CROPS, PLANTS, TREES OR OTHER DESIRABLE VEGETATION SINCE SEVERE DAMAGE OR DESTRUCTION MAY RESULT.

Repeat treatments may be necessary to control weeds regenerating from underground parts or seed. Except as otherwise specified on this labet, repeat treatments must be made before the crop emerges in accordance with the instructions of this labet.

Except as otherwise specified in a crop section of this label, the combined total of all treatments must not exceed 8 quarts per acre of this product per year.

For any crop not listed below, applications must be made at least 30 days prior to planting.

On not harvest or feed treated vegetation for 8 weeks following application. Following spot treatment or selective equipment use, allow 14 days before grazing damestic livestock or harvesting forage grasses and legumes.

ROW CROPS
CORN (ALL)*
COTTON*
PEANUTS

PEANUTS
SORGHUM (MILO)*
SOYBEANS*
SUGARCANE*

CEREAL GRAINS

BARLEY*

BUCKWHEAT*

MILLET (PEARL, PROSD)*

RICE**
RYE*
TRITICALE*
WHEAT (ALL)*
WILD RICE*

CITRUS

OATS*

CALAMONDIN CHIRONIA CHIRON GRAPEFRUIT KUMQUAT LEMON LIME

MANDARIN DRANGE Drange (ALL) PUMMELO TANGELO TANGERINE

TANGERINE
TANGORS

IREE NUTS
ALMOND
BEECHNUT
BRAZIL NIIT

BRAZIL NUT
BUTTERNUT
CASHEW
CRESTNUT
CHINQUAPIN
FILBERT (HAZELNUT)
RICKORY NUT

MACADAMIA PECAN PISTACHIO

WALNUT (BLACK, ENGLISH)

<u>Vine Crops</u> Grapes Kiwi Fruit

TREE FRUITS
APPLE
APRICOTS

CHERRY (SWEET, SOUR)

LOQUAT MAYHAW

NECTARINE OLIVE PEACH PEAR PLUM/PRUNE (ALL) QUINCE . VECETABLES ARTICHOKE. JERUSALEM ASPARAGUS* BEANS (ALL) **BEET GREENS** BEETS (RED, SUGAR) BROCCOLI (ALL) BRUSSELS SPROUTS CABBAGE (ALL) CABBAGE, CHINESE CANTALOUPE*** CARROT CAULIFLOWER CASABA MELON*** CELERIAC CELERY CHARD, SWISS CHICORY COLLARDS CRENSHAW MELON*** CUCUMBER*** EGGPLANT*** ENDIVE GARLIC*** GOURDS***

HONEY BALL MELON*** HORSERADISH KALE KOHLRA81 LEEK LENTILS LETTUCE MANGO MELON*** MELONS (ALL)*** MUSKMELON*** **MUSTARD GREENS** OKRA ONION PARSLEY PARSHIPS PEAS (ALL) PEPPER (ALL)*** PERSIAN MELON*** POTATO (IRISH, SWEET) PUMPKIN*** RADISH RAPE GREENS RHUBARB RUTABAGA SHALLOT SPINACH (ALL) HZAUDZ (SUMMER, WINTER)*** TOMATILLO** TOMATO***† TURNIP

WATERCRESS***

WATERMELON***

YAMS

CHERIMOYA ...

COFFEE

DATES

FIGS GENIP

GUAYA JABOTICABA

JACKFRUIT LONGAN

LYCHEE

MANGO Papaya

PASSION FRUIT

PINEAPPLE****

POMEGRANATE

SAPOTE (BLACK, MAMEY,

SAPODILLA

WHITE)

SOURSOP

TAMARIND

TEA

SUGAR APPLE

PERSIMMONS

SMALL FRUITS AND BERRIES
BLACKBERRY

BLUEBERRY

GROUND CHERRY***

HONEYDEW MELON***

BOYSENBERRY
CRANBERRY
CURRANT
OEWBERRY
ELDERBERRY
GOOSEBERRY
HUCKLEBERRY
LOGANBERRY
OLALLIEBERRY
RASPBERRY (BLACK, RED)

FORAGE CROPS AND LEGUMES

ALFALFA* FORAGE GRASSES* FORAGE LEGUMES*

ACEROLA ATEMOYA

TROPICAL CROPS

AVOCADO Bahana (Plantains) Breadfruit

CANISTEL Carambola

*Spot treatments may be applied in these crops.

- **Do not treat rice fields or levees when the fields contain flood water.
- ***Apply only prior to planting. Allow at least 3 days between application and planting.
- ****Do not feed or graze treated pineapple (orage following application.

†Use is restricted to direct seeded crops only.

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When applying this product prior to transplanting crops into plastic mutch, care must be taken to remove residues of this product from the plastic prior to transplanting. Residues can be removed by 0.5 inch natural rainfall or by applying water via a sprinkler irrigation system.

Spot Treatment (Only those crops with "*" can be spot treated.) — Applications in growing crops must be made prior to heading of small grains and mile, initial pod set in soybeans, silking of corn, or boll opening on cotton.

For forage grasses and forage tegumes see "SPOT TREATMENT" in the "PASTURES" section of "CROPPING SYSTEMS" in this label.

For dilution and rates of application using boom or hand-held equipment, see "MIXING, ADDITIVES and APPLICATION INSTRUCTIONS" and "WEEDS CONTROLLED" sections of this label.

NOTE: FOR FORAGE GRASSES AND FORAGE LEGUMES, NO MORE THAN ONE-TENTH OF ANY ACRE SHOULD BE TREATED AT ONE TIME. FOR ALL OTHER CROPS, DO NOT TREAT MORE THAN 10 PERCENT OF THE TOTAL FIELD AREA TO BE HARVESTED.

THE CROP RECEIVING SPRAY IN TREATED AREA WILL BE KILLED. TAKE CARE TO AVOID DRIFT OR SPRAY OUTSIDE TARGET AREA FOR THE SAME REASON.

Selective Equipment—This product may be applied through recirculating sprayers, shielded applicators or wiper applicators in cotton and soybeans. Shielded and wiper applicators may also be used in tree crops and grapes. Wiper applicators may be used in wheat, rutabagas, forage grasses and forage legumes, including pasture sites and grain sorghum (milo).

See the "SELECTIVE EQUIPMENT" part of the "APPLICATION EQUIP-MENT and TECHNIQUES" section of this label for information on proper use and calibration of this equipment.

Allow at least the following time intervals between application and harvest:

Cotton, Soybeans 7 days
Apples, Citrus, Pear 1 day

Atemoya, Avocado, Breadfruit, Canistel, Carambola, Cherry, Grapes, Dates, Jaboticaba, Jackfruit, Longan, Lychee, Passion Fruit, Persimmons, Rutabagas,

 Sapodilla, Sapote, Soursop, Sugar Apple, Tamarind
 14 days

 Stone Fruit
 17 days

 Nut Crops, except pistachios
 3 days

 Pistachio nuts
 21 days

 Wheat¹
 35 days

² Do not feed or graze treated milo fooder. Do not ensile treated vegetation.

ASPARAGUS

When applied as directed for "CROPPING SYSTEMS" under the conditions described, this product controls weeds listed on this label in asparagus.

For specific rates of applications and instructions for control of various annual and perennial weeds, see the "WEEOS CONTROLLED" section of this label.

Prior to Crop Emergence—Apply this product prior to crop emergence for the control of emerged labeled annual and perennial weeds. DO NOT APPLY WITHIN A WEEK BEFORE THE FIRST-SPEARS EMERGE.

Spot Treatment—Apply this product immediately after cutting, but prior to the emergence of new spears. Do not treat more than 10 percent of the total field area to be harvested. Do not harvest within 5 days of treatment.

Postharvest — Apply this product after the last harvest and all spears have been removed. If spears are allowed to regrow, delay application until ferns have developed. Delayed treatments should be applied as directed or shielded spray in order to avoid contact of the spray with ferns, stems or spears. Direct contact of the spray with the asparagus may result in serious crop injury.

NOTE: Select and use recommended types of spray equipment for postemergence postharvest applications. A directed spray is any application where the spray pattern is aligned in such a way as to avoid direct contact of the spray with the crop. A shielded spray is any application where a physical barrier is positioned and maintained between the spray and the crop to prevent contact of spray with the crop.

BERRIES AND SMALL FRUITS

Wiper applicators may be used in cranberries in accordance with instructions in this section.

For other berries, apply as a preplant broadcast application, or as a directed spray or wiper application post-planting.

See "GENERAL INFORMATION" and "MIXING, ADDITIVES and APPLICATION INSTRUCTIONS" sections of this label for essential product performance information.

See the "SEEECHVE EQUIPMENT" part of the "APPLICATION EQUIP-MENT and FECHNIQUES" section of this label for information on recommended use and catibration of this equipment.

Allow a minimum of 30 days between last application and harvest of cranberries. For other small fruits and berries, allow a minimum of 14 days between last application and harvest.

For Wick or other Wiper Applicators—Mix 1 gallon of this product in 4 gallons of water to prepare a 20 percent solution.

In severe infestations, reduce equipment ground speed to ensure that adequate amounts of this product are wiped on the weeds. A second treatment in the opposite direction may be beneficial.

Do not permit herbicide solution to contact desirable vegetation, including green shoots, canes or follage.

CORN

Hooded Sprayers—This product may be used through hooded sprayers for weed control between the rows of corn. Only hooded sprayers that completely enclose the spray pattern may be used.

A hooded sprayer is a type of shielded applicator. The spray pattern is completely enclosed on the top and all 4 sides by a hood, thereby shielding the crop from the spray solution. This equipment must be set up and operated in a manner that avoids bounting or raising the hoods off the ground in any way. If the hoods are varised, spray particles may escape and come into contact with the crop, Causing damage or destruction of the crop. The spray hoods must be operated on the ground or skimming across the ground. Iractor speed must be adjusted to avoid bouncing of the spray hoods. Avoid operation on rough or sloping ground where the spray hoods might be raised off the ground.

When applying to corn that is grown on raised beds, ensure that the hood is designed to completely enclose the spray solution. If necessary, extend the front and rear flaps of the hoods to reach the ground in deep furrows.

Follow these requirements: ,

- The spray hoods must be operated on the ground or skimming across the ground.
- Do not apply more than 1 quart of this product per acre per application.
- Corn must be at least 12 inches tall, measured without extending leaves.
- Leave at least an 8 inch untreated strip over the drill row. For example, if the crop row width is 38 inches, the maximum width of the spray hood should be 30 inches.

- · Maximum tractor speed: 5 mph.
- · Maximum wind speed: 10 mph.
- Use low-drift nozzles.

Crop injury may occur when the foliage of treated weeds comes into direct contact with leaves of the crop. Do not apply this product when the leaves of the crop are growing in direct contact with weeds to be treated. Droplets, mist, foam or splatter of the herbicide solution may contact the crop and cause discoloration, stunting or destruction.

Contact of this product in any manner to any vegetation to which Ireatment in not intended may cause damage. Such damage shall be the sole responsibility of the applicator.

For specific rates of application and instructions for control of various annual and perennial weeds, see the "WEEDS CONTROLLED" section of this label.

Do not graze or feed corn forage or fodder following applications of this product through hooded sprayers.

Do not apply more than 3 quarts of this product per acre per year for hooded sprayer applications.

FALLOW AND REDUCED TILLAGE SYSTEMS

FOR AERIAL APPLICATION IN CALIFORNIA, REFER TO SUPPLEMENTAL LABEL.

Use this product in fallow and reduced tillage systems for control of annual weeds prior to emergence of crops fisted in this label. Refer to the "WEEDS CONTROLLED" section of this label for specific rates and instructions. This product may be applied using ground or aerial spray equipment. See the "APPLICATION EQUIPMENT and TECHNIQUES" section of this label for instructions.

TANK MIXTURES

MIRAGE® plus BANVEL plus NONIONIC SURFACTANT

MIRAGE plus 2,4-D plus nonionic surfactant

MIRAGE PIUS GOAL™ PIUS NONIONIC SURFACTANT

DO NOT APPLY BANVEL OR 2,4-D TANK MIXTURES BY AIR IN CALIFORNIA.

Applications of 2,4-D or Banvel must be made at least 7 days prior to planting corn.

The addition of Banvel in a mixture with this product may provide short-term residual control of selected weed species. Some crop injury may occur if Banvel is applied within 45 days of planting. Refer to the Banvel and 2.4-0 labels for cropping restrictions and other use instructions.

Mirage® plus Goal Tank Mixtures

 This product alone or in tank mixtures with Goal plus 0.5 to 1 percent nonionic surfactant by total spray volume will provide control of those weeds listed below.

Make applications when weeds are actively growing and at the recommended stages of growth. Avoid spraying when weeds are subject to moisture stress, when dust is on the foliage or when straw canopy covers the weeds.

Mirage 12 fluid	oz/açre	Mirage 16 fluid oz	/acre
Wheat	18"	Annual grasses at left p	itus:
Barley	12"	Ryegrass,	
Bluegrass,		annual .	6"
annual	6"	Chickweed	6*
Barnyardgrass	6"	Groundsel	6*
Rye	6"	Marestail	6"
		Rocket, London	6"
		Shepherdspurse	. 6"
		Crabgrass	12"
		Johnsongrass.	
		seedling	12"
		Lambsquarters	12
		Oats, wild	12"
		Pigweed, redroot	12"
		Mustards	12"

 $\ensuremath{\text{NOTE}}\xspace$. Use 32 fluid ounces of this product per acre where heavy weed densities exist.

Mirage 12 fluid oz/acre		Mirage 16 fluid o	
GOAL** 2 to 4 fluid	oz/acre	GOAL** 2 to 4 fluid	02/асте
Annual grasses above p Chaeseweed,	plus:	Annual weeds above p Cheeseweed,	
common	3"	солитол	6"
Chickweed	3"	Groundsei	6"
Groundsel	3"	Chickweed	12"
Rocket, London	6"	Rocket, London	17
Shepherdspurse	67	Shepherdspurse	12"

NOTE: Use 32 fluid ounces of this product per acre in mixtures with 2 to 4 fluid ounces of Goal per acre where heavy weed densities exist.

*Maximum height or length in inches.

**Use the higher rate of Goal when weeds approach maximum recommended height or stands are dense.

These recommended tank mixtures may be applied using ground or aerial spray equipment. Refer to the "WEEDS CONTROLLED" section of this label for specific rates and instructions.

ECOFARMING SYSTEMS

The recommendations made in this section are not registered for use in California.

The Ecotarming System consists of the following rotation: winter wheat, corn/sorghum, ecotallow.

Use the following tank mixtures for control of emerged annual weeds before planting corn or sorghum in the Ecofarming System.

		87
	Lasso® at 2.5 to 3 quarts per acre	•
_	plu\$	_
	Atrazine at 0.75 to 1 pound a.i. per acre	_
	plus	
	2,4-D at 0.375 to 0.5 pound a i. per acre	
_	zulą	
-	Mirage® at 16 to 20 fluid ounces per acre	-
_		

The above tank mixture should be applied in 28-0-0 or 32-0-0 liquid fertilizer carrier at 20 to 30 gallons per acre. The liquid fertilizer may be diluted with water to achieve the desired carrier volume.

 WEEDS CONTROLLED - The following weeds, up to a maximum height of 4 inches, will be controlled:

Brome, downy Bromus tectorum Lettuce, prickly

Lactuca serriola

Cheat

Pigweed, redroot

Amaranthus retroflexus

Bromus secalinus Foxiail, green Setaria viridis

Thistle, Russian Salsola kali

Foxtail, yellow Setaria lutescens Wheat, volunteer

Kochia*

Kochia scoparia

*For improved control of kochia, add 4 fluid ounces per acre (0.125 gound a.i. per acre) of Banvel to the above tank mixture.

Risk of crop injury from 2,4-D or Banvel can be reduced by applying this treatment 7 to 14 days before planting.

Refer to the label booklet for Lasso® herbicide for preemergence weed control achieved by this tank mixture.

Refer to the specific product labels for crop rotation restrictions and cautionary statements for all products used in these tank mixtures.

AID TO TILLAGE

This product, when used in conjunction with preplant tillage practices, will provide control of downy brome, cheat, volunteer wheat, tansy mustard and foxtail. Apply 8 fluid ounces of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. Make applications when weeds are actively growing and before they are 6 inches in height. Application must be followed by conventional tillage practices no later than 15 days after treatment

and before regrowth occurs. Allow at least 1 day after application before tillage. Tank mixtures with residual herbicides may result in reduced performance.

POSTHARVEST GRAIN SORGHUM, SORGHUM REGROWTH CONTROL

This product may be applied to grain sorghum (mile) stubble following harvest to suppress or control regrowth. Apply 1 quart of this product per acre for control, or 1.5 pints of this product per acre for suppression. Use 0.5 percent nonionic surfactant in 3 to 10 gallons of spray solution per acre.

PASTURES

Apply this product prior to planting forage grasses and legumes.

Pasture or Hay Crop Renovation—When applied as a broadcast spray, this product controls the annual and perennial weeds listed in this label prior to planting forage grasses or legumes. Remove domestic livestock before application and wait 8 weeks after application before grazing or harvesting.

Spot Treatment—When applied as a spot treatment as recommended, this product controls annual and perennial weeds listed in this label which are growing in pastures, forage grasses and forage legumes composed of bahiagrass, bermudagrass, bluegrass, brome, fescue, orchardgrass, ryegrass, timothy, wheatgrass, alfalfa or clover.

Wiper Application—When applied as directed, this product controls or suppresses the weeds listed under "WIPER APPLICATORS" in the "SELECTIVE EQUIPMENT" section of this label.

For spot treatment and wiper application, apply in areas where the movement of domestic livestock can be controlled. No more than one-tenth of any acre should be treated at one time. Further applications may be made in the same area at 30-day intervals. Remove domestic livestock before application and wait 14 days after application before grazing livestock or harvesting.

SUGARCANE

When applied as directed for "CROPPING SYSTEMS", under the conditions described, this product controls those emerged annual and perennial weeds listed on this label growing in or around sugarcane or in fields prior to the emergence of plant cane. This product will also control undesirable sugarcane.

NOTE: Where repeat treatments are necessary, do not exceed a total of 10.6 quarts of this product per acre per year. Do not apply to vegetation in or around ditches, canals or ponds containing water to be used for irrigation.

Broadcast Treatment—Apply this product in 10 to 40 gallons of water per acre on emerged weeds prior to the emergence of plant cane.

For specific rates of application and instructions for control of various annual and perennial weeds, see the "WEEDS CONTROLLED" section of this label

For removal of last stubble or ration cane, apply 4 to 5 quarts of this product in 10 to 40 gallons of water per acre to new growth having at least 7 or more new leaves. Allow 7 or more days after application before tillage.

Spot Treatment in or Around Sugarcane Fields—For dilution and rates at application using hand-held equipment, see "MIXING, ADDITIVES and APPLICATION INSTRUCTIONS" and "WEEDS CONTROLLEO" sections of this label.

For control of volunteer or diseased sugarcane, make a 1 percent solution of this product in water and spray to wet the foliage of vegetation to be controlled.

NOTE: When spraying volunteer or diseased sugarcane, the plants should have at least 7 new leaves.

Avoid spray contact with healthy cane plants since severe damage or destruction may result.

Do not feed or graze treated sugarcane forage following application.

CONSERVATION TILLAGE. MINIMUM TILLAGE AND NO-TILL SYSTEMS CORN AND SOYBEANS Tank Mixtures

The recommendations made in this section are not registered for use in California.

When applied as recommended under the conditions described, the tank mixtures listed in this section control many emerged weeds, and give preemergence control of many annual weeds where corn or soybeans will be planted directly into a cover crop, established sod or in previous crop residues.

Refer to specific product labels for copy rotation restrictions and cautionary statements of all products used in these tank mixtures. For mixing instructions, see the "MIXING, ADDITIVES and APPLICATION INSTRUCTIONS" section of this tabel.

Apply these tank mixtures in 10 to 20 gallons of water or 10 to 60 gallons of nitrogen solution per acre before, during or after planting. Oo not apply these mixtures after crop emergence.

When tank mixing with residual herbicides, add an agriculturally approved nonionic surfactant at 0.5 to 1 percent by volume of spray solution. The addition of 1 to 2 percent dry ammonium suifate by weight may increase the performance of this product.

NOTE: When using these tank mixtures, do not exceed 4 quarts of this product per acre.

CORN

For residual control, this product may be tank-mixed with the following herbicides or combination of herbicides:

LASSO/ALACHLOR ATRAZINE
LARIAT® CYANAZINE
BULLET® SIMAZINE
DUALIM PROWLIM
BICEP™ MICRO-TECH®
PARTNER®

For improved burndown, this product may be tank-mixed with 2.4-D or dicamba. Applications of 2.4-D or dicamba must be made at least 7 days prior to planting corn. See the "WEEDS CONTROLLED" section for specific rate information.

SOYBEANS

For residual control, this product may be tank-mixed with the following herbicides or combination of herbicides:

LOROXIM PLUS CANDPYIM PREVIEW^{IM} COMMANDTM DUAL PROWL **GEMINITA** TURBO!M SCEPTERIM LASSO/ALACHLOR LEXONE^{1M} SENCORIM SQUADRON*** LINURON PURSUIT PLUSIM PURSUITIN MICRO-TECH® PARTNER

For improved burndown, this product may be tank-mixed with the following herbicides:

2.4-DB

2,4-0*

*See the label for 2.4-D for intervals between application and planting.

CORN AND SOYBEANS

Annual Weeds—for difficult-to-control weeds such as fall panicum, barnyardgrass, crabgrass, shattercane and broadleaf signalgrass up to 2 inches tall, and Pennsylvania smartweed up to 6 inches tall, apply this product at 2 pints per acre in these tank mixtures. For other labeted annual weeds, apply 1 to 1.5 pints of this product per acre when weeds are less than 6 inches tall, and 2 to 3 pints when weeds are over 6 inches tall. For a complete fist of annual weeds controlled, see the "WEEDS CONTROLLED" section of this label.

Perennial Weeds—At normal application times in minimum tillage systems, perennial weeds may not be at the proper stage of growth for control. See the "WEEDS CONTROLLED" section of this label for the proper stage of growth for perennial weeds.

Use of 2 to 4 quarts of this product per acre in the tank mixtures mentioned above, under these conditions provides top kill and reduces competition from many emerged perennial grass and broadleaf weeds. For emerged perennial weeds controlled, see the "YEEDS CONTROLLED" section of this label.

To obtain the desired stage of growth, it may be necessary to apply this product alone in the late summer or fall and then follow with a label-approved, seedling weed-control program at planting.

USE OF THESE TANK MIXTURES FOR BERMUDAGRASS OR JOHN-SONGRASS CONTROL IN MINIMUM TILLAGE SYSTEMS IS NOT REC-OMMENDED. For bermudagrass control, follow the instructions under "CONTROL OF PERENNIAL WEEOS" section of this label and then use a label-approved, seedling weed-control program in a minimum tillage or conventional tillage system. For Johnsongrass control, follow instructions under "CONTROL OF PERENNIAL WEEDS" section of this label, and then use a label-approved, seedling weed-control program with conventional tillage.

PREHARVEST APPLICATIONS

When applied as directed under the conditions described, this product controls annual and perennial weeds listed on this label prior to the harvest of cotton, soybeans, grain sorghum (milo), and wheat.

For specific rates and application instructions for control of various annual and perennial weeds, see the "WEEDS CONTROLLED" section of this label.

This product may be applied by both ground and aerial application equipment. OO NOT APPLY MORE THAN 1 QUART PER ACRE OF THIS PRODUCT BY AIR. See the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label for instructions for ground and aerial applications.

NOTE: Do not apply to crops grown for seed. Reduction in germination or vigor may occur.

The use of this product for preharvest grain sorghum (milo) is not registered in California.

SOYREANS

Apply after pods have set and lost all green color. Allow a minimum of 7 days between application and harvest of soybeans. Care should be taken to avoid excessive seed shatter loss due to ground application equipment.

On not graze or harvest treated crop for livestock feed within 25 days of last preharvest application.

DO NOT APPLY MORE THAN 6 QUARTS PER ACRE OF THIS PRODUCT FOR PREHARVEST APPLICATIONS.

COTTON

Broadcast Applications—This product may be applied using either aerial or ground spray equipment. For ground applications with broadcast equipment, apply this product in 10 to 20 gallons of water per acre. For aerial applications, apply this product in 3 to 10 gallons of water per acre.

This product provides weed control and cotton regrowth inhibition when applied prior to the harvest of cotton. Apply 1 to 2 quarts of this product in 3 to 10 gallons of water per acre for cotton regrowth inhibition. Do not apply more than 2 quarts of this product per acre for preharvest applications. THE USE OF ADDITIVES FOR PREHARVEST APPLICATION TO COTTON IS PROHIBITED.

This product may be tank mixed with DEFTM 6. FolexTM, or PrepTM to provide additional enhancement of cotton leaf drop.

Allow a minimum of 7 days between application and harvest of cotton.

Apply after sufficient bolls have developed to produce the desired yield of cotton. Applications made prior to this time could affect maximum yield potential.

Do not feed or graze treated colton forage or hay following preharvest applications.

GRAIN SORGHUM (MILO)

Make applications at 30% grain moisture or less and at least 7 days prior to harvest.

Apply up to 2 quarts of this product per acre.

WHEAT

Apply after the hard-dough stage of grain (30% or less grain moisture) and at least 7 days prior to harvest.

DO NOT APPLY MORE THAN 1 QUART PER ACRE OF THIS PRODUCT FOR PREHARVEST APPLICATIONS TO WHEAT.

TREE AND VINE CROPS

This product is recommended for weed control in established groves, vineyards, and orchards, or for site preparation prior to transplanting crops listed in this section. Applications may be made with boom equipment. CDA, shielded sprayers, hand-held and high-volume wands, lances, orchard guns or with wiper applicator equipment, except as directed in this section. See the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label for specific information on use of equipment.

When applying this product, refer to the "WEEDS CONTROLLED" section of this label and to specific recommendations in this section for rates to be used.

NOTE

Repeat treatments may be necessary to control weeds originating from underground parts of untreated weeds or from seeds. This product does not provide residual weed control. For subsequent weed control, use repeated applications of this product. Do not apply more than 10.6 quarts of this product per acre per year.

EXTREME CARE MUST BE EXERCISED TO AVOID CONTACT OF HERBI-CIDE SOLUTION, SPRAY, DRIFT OR MIST WITH FOLIAGE OR GREEN BARK OF TRUNK, BRANCHES, SUCKERS, FRUIT OR OTHER PARTS OF TREES OR VINES. CONTACT OF THIS PRODUCT WITH OTHER THAN MATURED BROWN BARK CAN RESULT IN SERIOUS CROP DAMAGE.

AVOID PAINTING OUT STUMPS WITH THIS PRODUCT AS INJURY RESULTING FROM ROOT GRAFTING MAY OCCUR IN ADJACENT TREES.

Reduced control may result when applications are made to annual or perennial weeds that have been mowed, grazed or cut and have not been allowed to regrow to the recommended stage for treatment.

For specific rates of applications and instructions, see the "WEEDS CONTROLLED" section of this label, and to specific recommendations which follow.

MIDDLES MANAGEMENT

FOR ANNUAL WEEDS IN MIDDLES BETWEEN ROWS OF TREE AND VINE CROPS

For citrus crops, treat uniformly between trees.

MIRAGE®

MIRAGE plus GDAL

This product alone or in mixtures with Goal will control or suppress the annual weeds listed below.

Apply the recommended rates of this product, either alone or in mixtures with Goal, plus 0.5 to 1 percent nonionic surfactant by spray volume in 3 to 10 gallons of water per acre. Apply when weeds are actively growing and less than 6 inches in height or diameter. If weeds are under drought stress, irrigate prior to application. Reduced control may occur if weeds have been mowed prior to application. Up to 48 fluid ounces per acre of this product may be used to control weeds, which have been mowed, are stressed or are growing in dense populations.

WEED SPECIES	MAXIMUM HEIGHT/ DIAMETER (INCHES)	RATE PE MIRAGE® (FLUID OUNCES)	GOAL (FLUID
Barley Hordeum vulgare	δ.	8	
Bluegrass, annual Poa annua			
Barnyardgrass Echinochloa crus-galli	6	12	
Chickweed, common Stellaria media			
Red Maids Calandrinia ciliata			

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, and the control of	MAXIMUM HEIGHT/ DIAMETER (INCHES)	RATE PE MIRAGE® (FLUID OUNCES)	GOAL
WEED SPECIES	6	16	
Crabgrass Digitaria spp.			
Fleabane, hairy Conyza bonariensis			OR
Groundsel, common Senecio vulgaris		16 to 32	+ 4 to 16**
lunglerice Echinochloa colonum			
Lambsquarters, common Chenopodium album	n		
Pigweed, redroot Amaranthus retroflexus	:		
Rocket, London Sisymbrium iria			
Ryegrass, common Lolium multiflorum			
Shepherdspurse Capsella bursa-pasto	ris		
Sowthistle, annual Sonchus oleraceus			
Cheeseweed, common	3		32 + 4 to 16
Cheeseweed, commo	n 6	16 ta	32 + 4 to 16

Filaree* Erodium spp.		-
Horseweed/Marestail Conyta canadensis		
Nettle, stinging Unica dioica		
Purselane, common* Purtulaca oleracea		

^{*}Suppression only.

STRIPS

FOR ANNUAL AND PERENNIAL WEEDS IN STRIPS OF TREE AND VINE CROPS

TANK MIXTURES WITH RESIDUAL HERBICIDES

When applied as a tank mixture, this product provides control of the emerged annual weeds and control or suppression of emerged perennial weeds listed in this label. The following residual herbicides with provide preemergence control of those weeds listed in the individual product labels. product labels.

•	PRINCEP CALIBER 90 MIRAGE plus SIMAZINE 4L MIRAGE plus SIMAZINE 80W	•
•	MIRAGE plus SIMAZINE. PRINCEP CALIBER 90	-
_	MIRAGE plus KROVAR II	•
_	MIRAGE plus KROVAR I	
	MIRAGE plus KARMEXTM DF	-
product ipacia:	MIRAGE® plus GOAL ZXL	_

^{**}The mixture of this product plus Goal is recommended when weeds are stressed or growing in bense populations.

		100
=	MIRAGE plus SOLICAM™ 80DF	
	MIRAGE plus SURFLAM AS	a
	MIRAGE plus SURFLAN 75W	•
•	MIRAGE plus SIMAZINE (80W, or 4L, or PRINCEP CALIBER 90) plus SURFLAN (AS or 75W)	
	MIRAGE plus GOAL 2XL plus SURFLAN (AS or 75W)	
	MIRAGE plus GOAL 2XL plus SIMAZINE (80W, or 4L, or princep caliber 90)	•
•	MIRAGE plus GOAL 2XL plus Surflan (AS of 75W) plus Simazine (80W, 4L, of Princep Caliber 90)	

Do not apply these tank mixtures in Puerto Rico.

When tank-mixing with residual herbicides, add an agriculturally approved nonionic surfactant at 0.5 to 1 percent by volume of spray

Refer to the individual product labels for specific crops, rates, geographical restrictions and precautionary statements.

Read and carefully observe the label claims, cautionary statements, rates and all other information on the labels of all products.

RECOMMENDED RATES

Annual Weeds---Apply 1 to 5 quarts per acre of this product in these tank mixtures. Use rates at the higher end of the recommended range when weeds are stressed, growing in dense populations or are greater than 12 inches tall.

Perennial Weeds---Apply 1 pint to 5 quarts per acre of this product in these tank mixtures to control or suppress perennial weeds. Follow the recommendations in the "WEEDS CONTROLLED" section of this label for stage of growth and application rates for specific perennial weeds.

MIRAGE® plus GOAL plus SIMAZINE/SURFLAN

This product plus low rates of Goal in 3-way or 4-way mixtures with simazine and/or Surflan will provide posternergence control of the weeds listed below

Refer to the individual simazine and Surflan labels for preemergence rates, weeds controlled, precautionary statements and other important information.

Apply these tank mixtures in 3 to 40 gallons of water, Add 0.5 to 1 percent nonionic surfactant by lotal spray volume to the spray solution.

Apply 1 to 5 quarts per acre of this product plus 4 to 48 fluid ounces per acre of Goal plus tabeled rates of simazine and/or Surflan to control the following weeds:

Barley, wild Hordeum leporinum Bluegrass, annual Poa annua

Cheeseweed, common Malva spp.

Chickweed, common Stellaria media Filaree*

Erodium spp. Fleabane, hairy

Conyza bonariensis

Horseweed/Marestail Conyza canadensis

Nettle, stinging Urtica dioica

Pineappleweed Matricaria matricariodes

Rocket, London Sisymbrium irio

Shepherdspurse Capsella bursa-pastoris

Sowthistle, annual Sonchus aleraceus

Groundsel, common Senecio vulgaris

*Use a minimum of 1.5 quarts of this product in these mixtures.

NOTE: This recommendation does not preclude the use of Goal in these mixtures at higher, labeled rates for preemergence weed control.

PERENNIAL GRASS SUPPRESSION ORCHARD FLOORS

When applied as directed, this product will suppress vegetative growth as indicated below.

Bahiagrass

This product will provide significant inhibition of seedhead emergence and will suppress vegetative growth for a period of approximately 45 days with a single application and approximately 120 days with sequential applications. Apply this product 1 to 2 weeks after full green-up or after mowing to a uniform height of 3 to 4 inches. Applications must be made prior to seedhead emergence. Apply 6 fluid ounces of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 10 to 25 gallons of water per acre.

Sequential applications of this product plus nonionic surfactant may be made at approximately 45-day intervals to extend the period of seedhead and vegetative growth suppression. For continued seedhead suppression, sequential applications must be made prior to seedhead emergence. Apply no more than 2 sequential applications per year. As a first sequential application, apply 4 fluid ounces of this product plus nonionic surfactant. A second sequential application of 2 to 4 fluid ounces may be made approximately 45 days after the last application.

Bermudaerace

For burndown, apply 1 to 2 quarts of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 20 gallons of water per acre. Use 1 quart of this product in 3 to 20 gallons of water per acre east of the Rocky Mountains. Use 1 to 2 quarts of this product in 3 to 10 gallons of water per acre west of the Rocky Mountains. Use this treatment only if reduction of the bermudagrass stand can be tolerated. When burndown is required prior to harvest, allow at least 21 days to ensure sufficient time for burndown to occur.

Suppression only (east of the Rocky Mountains)—Apply 6 to 16 fluid ounces of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 20 gallons of water per acre no sooner than 1 to 2 weeks after full green-up. Moving prior to application may occur provided a minimum height of 3 inches is maintained. Rates of 6 to 10 fluid ounces of this product plus nonionic surfactant should be used in shaded conditions or where a lesser degree of suppression is desired. Sequential applications may be made when regrowth occurs and bermudagrass injury and stand reduction can be tolerated.

Suppression only (west of the Rocky Mountains)—Apply 16 fluid ounces of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre to bermudagrass up to 6 inches in height and no sooner than 1 to 2 weeks after full green-up. Mowing prior to application may occur provided a minimum height of 3 inches is maintained. Sequential applications may be made when regrowth occurs and bermudagrass injury and stand reduction can be tolerated.

Cool Season Grass Covers

For suppression of tall fescue, fine fescue, orchardgrass and quackgrass, apply 8 fluid ounces of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 10 to 20 gallons of water per acre. For best suppression, add ammonium sulfate to the spray solution at a rate of 2 percent by weight or 17 peunds per 100 gallons of spray solution.

For suppression of Kentucky bluegrass covers, apply 6 fluid ounces of this product plus 0.5 to 1 percent nonionic surfactant. Do not add ammonium sulfate.

For best results, mow cool-season grass covers in the spring to even their height and apply the recommended rate of this product 3 to 4 days after mowing. Avoid treating cool season grass covers under poor growing conditions, such as drought stress (drip irrigation), disease or insect damage.

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LOW VOLUME APPLICATION (FLORIDA AND TEXAS)

For burndown or control of the weeds listed, apply the recommended rates of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 30 gallons of water per acre. Where weed foliage is dense, use 10 to 30 gallons of water per acre.

Annual Weeds

Goatweed—Apply 2 to 3 quarts per acre of this product plus 17 pounds of ammonium sulfate per 100 gallons of water plus 0.5 to 1 percent nonionic surfactant by total spray volume. Apply in 20 to 30 gallons of water per acre when plants are actively growing. Use 2 quarts per acre when plants are less than 8 inches tall and 3 quarts per acre when plants are jess than 8 inches tall and 3 quarts per acre when plants are greater than 8 inches. If goatweed is greater than 8 inches tall, the addition of Krovar II or Karmex may improve control. Use labeled rates for these residual products.

Read and carefully observe the label claims, cautionary statements, rates and all other information on the Krovar II and Karmex labels.

Perennial Weeds

Apply when weeds are actively growing and at the growth stages listed in the "PERENNIAL WEEDS CONTROLLED" section of this label. If perennial weeds are mowed, allow weeds to regrow to the recommended stage of growth.

S = Suppression PC = Partial control	8 = Burndown C = Control					
WEED	Mirage® RATE PER ACRE					
SPECIES	_l qt	2 qts	3 qts	5 qts		
Bermudagrass	₿	•	PC	C		
Guineagrass Texas and Florida Ridge Florida Flatwoods	B •	C	C	C C		
Paragrass	8	С	C	C		
Torpedograss	S	•	PC	C		

TREE CROPS

Citrus*****: calamondin, chironja, citron, grapeiruit, kumquat, lemon, lime, mandarin orange, orange, pummelo, tangelo, tangerine, tanzors.

Nuts**: almond, beechnut, Brazil nut, butternut, cashew, chestnuts, chinquapin, filbert, hazel nut, hickory nut, macadamia, pecan, pistachio, walnut.

Pome Fruit****: apple, loquat, mayhaw, pear, quince.

Stone Fruit***: apricots, cherries, nectarines, olives, peaches, plums/prunes.

For cherries, any application equipment listed in this section may be used in all states.

For citron and olives, apply as a directed spray only.

Any application equipment listed in this section may be used in apricots, nectarines, peaches and plums/prunes growing in Arizona, California, Colorado, Idaho, Kansas, Kentucky, New Jersey, North Dakota, Okfahoma, Oregon, Texas, Utah and Washington, except for peaches grown in the states specified in the following paragraph. In all other states use wiper equipment only.

For PEACHES grown in Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina and Tennessee only, apply with a shielded boom sprayer or shielded wiper applicator, which prevents any contact of this product with the foliage or bark of trees. Apply no later than 90 days after first bloom. Applications made after this time may result in severe damage. Remove suckers and low-hanging limbs at least 10 days prior to application. Avoid applications near trees with recent pruning wounds or other mechanical injury. Apply only near trees which have been planted in the orchard for 2 or more years. EXTREME CARE MUST BE TAKEN TO ENSURE NO PART OF THE PEACH TREE IS CONTACTED.

Tropical Fruit: acerola*, atemoya*, avocado*, banana*****, breadfruit*, canistel*, carambola*, cherimoya*, cocoa beans*, coflee****, dates*, figs*, genip*, guava*****, jaboticaba*, jackfruit*, longan*, lychee*, mango*, mayhaw*, papaya*****, passion fruit*, persimmons*, plantains****, pomegranate*, sapodilla*, sapote*, soursop*, sugar apple*, tamarind*, tea*. In coffee and banana, delay applications 3 months after transplanting to allow the new coffee or banana plant to become established.

NOTE:

- *Allow a minimum of 14 days between last application and harvest.
- **Allow a minimum of 3 days between last application and harvest of these crops, except pistachio nuts. For pistachio nuts allow a minimum of 21 days between last application and harvest.
- ****Allow a minimum of 17 days between last application and harvest.
- *****Allow a minimum of 28 days between last application and harvest.
- ******Allow a minimum of I day between last application and harvest.

VINE CROPS

Kiwi Fruit

Grapes: Any variety of table, wine or raisin grape may be treated with any equipment listed in this section.

Applications should not be made when green shoots, canes, or foliage are in the spray zone.

Allow a minimum of 14 days between last application and harvest. In the northeast and Great Lakes regions, applications must be made prior to the end of bloom stage of grapes to avoid injury.

^{*}Bullet, Lasso, Micro-Tech, Partner, and Lariat are registered trademarks of Monsanto Company.

^{1M}Oust, Krovar, Escort, Telar, Canopy, Gemini, Lexone, Lorox Plus, Diuron, Preview and Karmex are trademarks of E.I. duPont de Nemours and Company.

¹⁴Dual, Bicep, Princep and Caliber are trademarks of Novartis Corporation.

^{**}Surflan is a trademark of DowElanco Products Company.

^{*}Banvel and Solicam are trademarks of Sandoz, Inc.

^{*}Ronstar, Folex and Prep are trademarks of Rhone-Poulenc, Inc.

^{IM}Goal is a trademark of Rohm and Haas Company.

^{**}Sencor and Turbo are trademarks of Bayer AG.

TMProwl, Pursuit, Pursuit Plus, Scepter and Squadron are trademarks of American Cyanamid Company.

TMCommand is a trademark of FMC Corporation.

TMDEF is a trademark of Mobay Chemical Company.

^{**}Microfoil is a trademark of Union Carbide Agricultural Products.

[™]Thru-Valve is a trademark of Waldrum Specialties, Inc.

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This product is protected by U.S. Patent No. 4,405,531. Other patents pending. No license granted under any non-U.S. patent(s).

EPA Reg. No. 524-445-34704

21148V1-1/53

In case of an emergency involving this product, Call Collect, day or night, (314) 694-4000.

© 1997

Manufactured for: Platte Chemical Company 419 18th St. P.O. Box 667 Greely, Colorado 80632-0667 U.S.A.

This product is protected by U.S. Patent No. 4,405,531. Other patents pending No license granted under any non-U.S. patent(s).

EPA Reg. No. 524-445-34704

2114371-1/53

In case of an emergency involving this product, Call Collect, day or night, (314) 694-4000.

© 1997

Manufactured for: Platte Chemical Company 419 18th St. P.O. Box 667 Greely, Colorado 80632-0667 U.S.A.

Please read instructions on	reverse before comple	ting form.			Form Appro	oved.	OMB No. 2	070-0060). Approval expires 2-28-95
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1. Material This Product W	îll Be Packaged In:		. · · .				:		,
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6. Manner in Which Label is	s Affixed to Product	Lithogr Paper Stencil	glued (30	gal)	X Other	pra	ISTIC SI	eeve (2.5 gal)
Section - IV									
1. Contact Point (Complete	e items directly below fo	or identification	n of individ	ual to be co	ontacted, if	neces	sary, to pro	cess this	application.)
Name			Title A	gricult	ural		W. 4	Telephone	No. (Include Area Code)
Dr. Russell P.	Schneider		Regu	lations	Direct	or		202-3	183- ¹ 2460
3	*************************************	Certifica	tion	100					6. Date Application
I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete.									
I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or (Stamped).						(Stamped)			
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PAPERWORK REDUCTION ACT NOTICE and INSTRUCTIONS

PAPERWORK REDUCTION ACT NOTICE: Public reporting burden for this collection of information is estimated to average 0.85 hour per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Chief, Information Policy Branch, (2136), U.S. Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460; and to the Office of Information and Regulatory Affairs, Office of Management and Budges-Washington, DC 20503.

INSTRUCTIONS: This form is to be used for all applications for new registration, end use reregistration, amendment, resubmission, to applications for notifications, final printed labeling, reregistration, etc. In order to process an application for a new registration submitted on this form, the following material must accompany the application:

- 1. Certification with Respect to Citation of Data (EPA Form 8570-29). Ilf not exempted by 40 CFR 152.81 (b) (4));
- 2. Confidential Statement of Formula (EPA Form 8570-4);
- 3. Formulator's Exemption Statement (EPA Form 8570-27);
- 4. Five copies of draft labeling:
- 5. Three copies of any data submitted;
- 6. Authorization letter where applicable;
- Matrices where applicable.

Submission of Labeling - Labeling should first be submitted in the form of draft labels with all applications for new registration. Such draft labels may be in the form of typed label text on 8.5 x 11 inch paper for submission or a mockup of the proposed label. If prepared for mockup, it should be constructed in a way as to facilitate storage in an 8.5 x 11 inch file. Mockup labels significantly smaller than 8.5 x 11 inches should be mounted on 8.5 x 11 inch paper for submission.

Submission of Data - Data submitted in support of this application must be submitted in accordance with PR Notice 86-5.

SPECIFIC INSTRUCTIONS: Please read the instructions listed below before completing this application. First determine the type of registration action, listed in Block A, for which you are submitting this application. For applications submitted in connection with New Registration actions, Sections 1, III, and IV must be completed by the applicant. For applications submitted in connection with amended reregistration actions, resubmissions, or the notifications, reregistrations, atc., Sections I, II, and IV must be completed by the applicant.

Block A. Check the appropriate action for which you are submitting this form.

SECTION I - This section must be completed, as applicable, for all registration actions.

- 1. Company/Product Number Insert your Company Number, if one has been assigned by EPA. This number may have been assigned to you as a basic registrant, a distributor, or as an establishment. If your product is registered, insert the Product Number.
- 2. EPA Product Menager If known, fill in the name and PM number of the EPA Product Manager.
- 3. Proposed Classification Specify the proposed classification of this product.
- 4. Product Name Enter the complete product name of this pesticide as it will appear on the label. The name must be specific to this product only. Duplication of names is not permitted among products of the same company. Do not include any brend name or company line designations.
- 5. Name and Address of Applicant The name of the firm or person and address shown in your application is the person or firm to whom the registration will be issued. If you are acting in behalf of another party, you must submit authorization from that party to act for them in registration matters. An applicant not residing in the United States must have an authorized agent residing in the United States to act for them in all registration matters. The name and complete mailing address of such an agent must accompany this application.
- Expedited Review FIFRA section 3 (c) 3 (B) provides for expedited review of applications for registration, or amendments to existing registrations, that are similar or identical to other posticide products that are currently registered with the EPA. In order for your application to be eligible for expedited review, you must provide us with the EPA Registration Number and product name of the product you believe is similar to or identical to your product. The product must be similar or identical in both formulation and labeled uses.

SECTION II - This section must be completed for all applications submitted to amend the registration only of a currently registered product (Amendment), for a resubmission in response to an Agency letter, for notifications to the Agency, for the submission of final printed labeling, for reregistration and for any other action that pertains to a specific EPA-registered product. This section is not to be used for a new application for registration.

1. Subject of submission - Check the applicable block and provide the Agency letter date if appropriate. Provide a brief explanation of the purposets) for the submission, such as "the addition of a site, pest or crop (specify)"; "amend the Confidential Statement of Formula by..."; "reregistration submission"; "general label revision of use directions." Attach a separate page if additional space is needed.

SECTION III (Packaging and Container Information) - This Section must be completed for all applications submitted in connection with new registration of applicable amendments.

- 1. Type of Packaging. Check the appropriate block if your product will be packaged in the indicated packaging types. Indicate the size of the individual packets and number per retail container.
- 2. Type of Retail Container Indicate type of container in which product will be marketed.
- 3. Location of Net Contents Indicate the location of the net contents information for your product.
- 4 Size(c) of Retail Container Specify the net contents of all retail containers for your product.
- 5. Location of the Directions Indicate the location of the use directions for your product.
- 6. Menner in which label is affixed to product Indicated the method product label is attached to retail container.

SECTION IV (Contact Point) - This Section must be completed for all applications for Registration actions, i.e., new products registration residentials on, "me-loo," reregistration, etc.

- 1-5. Self-explanator, ,
- 6. EPA Use Only.

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OCT 2 6 1997

Monsanto

Monsanto Company Suite 1100 700 14th Street, N.W. Washington, D.C. 20005

October 10, 1997

Hand Delivered

Office of Pesticide Programs
Document Processing Center (NOTIF)
U.S. Environmental Protection Agency
Room 266A, Crystal Mall #2
1921 Jefferson Davis Highway
Arlington, VA 22202

Attention:

Mr. James A. Tompkins (7505C)

Team Leader (25)

Subject:

New Brand Name: Mirage® Herbicide

Distributor Supplemental under EPA Reg. No. 524-445

Dear Mr. Tompkins:

Monsanto and Platte Chemical Company have reached an agreement so that Monsanto requests that the Agency grant a Distributor Supplemental registration allowing Platte to distribute "Mirage Herbicide". This constitutes notification to EPA of the use of a new brand name "Mirage Herbicide" for EPA Registration Number 524-445. We enclose live (5) copies of draft product labeling for this new product. Also enclosed are a completed forms 8570-5 and a form 8570-1 for your records.

The Mirage Herbicide labeling is comprised completely of text that has have been already approved by the Agency on other 524-445 brands; this label is merely a rearrangement of the desired text into a single label booklet. This label is identical to the text submitted for Honcho Herbicide in Monsanto's letter dated 7-Oct-97, except for the changes to accommodate the brand name and distributor change. I enclose a copy of that letter for your reference regarding the sources of all elements of the label text.

If you have any questions on this matter please feel free to contact me through Dr. Russell P. Schneider or directly at 314-694-1582.

Sincerely,

Stephen J. Wratten

Manager, Registrations

cc: R. P. Schneider

D. Fee-White

D. Rassmusson

Monsanto

Monsanto Company Suite 1100 700 14th Street, N.W. Washington, D.C. 20005

January 14, 1998

Hand Delivered

Office of Pesticide Programs
Document Processing Center (Final Printed Labeling)
U.S. Environmental Protection Agency
Room 266A, Crystal Mall #2
1921 Jefferson Davis Highway
Arlington, VA 22202

Attention:

Mr. James A. Tompkins (7505C)

Team Leader (25)

Subject:

i

Buccaneer Herbicide (EPA Reg. No. 524-445-55467) Submission of Final Printed Supplemental Labels

Aerial Application in California

Dear Mr. Tompkins:

On 5-Nov-97, Monsanto submitted to EPA proposed supplemental labeling for the above product using the Notification process. A label for aerial application of Roundup Herbicide (524-445) has already been approved, and this action was merely intended to extend this use to the alternate brand name "Buccaneer Herbicide". Five (5) copies of the Final Printed Label are enclosed for your records. It is identified by the Print Plate Number 21147V1-6 and is dated 5-Nov-97.

In the course of finalizing this label, quality assurance review discovered that an incorrect template had been used to produce the proposed labeling submitted to EPA on 5-Nov-97, so that it contained the CAUTION signal word rather than the proper WARNING wording as required on EPA Reg. No. 524-445. This error has been corrected in the Final Printed Labeling. Monsanto emphasizes that the incorrect labeling was not printed or distributed, and the error was confined solely to the draft text submitted to the Agency.

Mr. James A. Tompkins 14-Jan-98 Page 2

A copy of the Roundup Herbicide supplemental label for Aerial Application California is enclosed for your reference and comparison. It was originally approved by the Agency on 18-Mar-91 and the present version was submitted as Final Printed Labeling on 18-Mar-94. The only text change for the Buccaneer Herbicide label involve changes related to the brand name, distributor name, company number, and their decision not to include a telephone contact number.

If you have any questions on this matter please feel free to contact me through Dr. Russell P. Schneider or directly at 314-694-1582.

Sincerely,

Stephen J. Wratten

Manager, Registrations

cc:

486

R. P. Schneider

D. Fee-White

D. Rasmusson

K. Estes, Tenkoz

Please read instructions on	reverse before comple	nting form.			Form Appr	rovedC	OMB No. 20	070-0060.	Approvel expires 05-31-9
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		Application	on for l	esticio	le - Sec	tion I			
1. Company/Product Numbe	524-445-55	467			roduct Man James		ins	3. Pro	oposed Classification
4. Company/Product (Name) Buccan	eer® Herbicide	2		PM# 2	5			L×	Nane Restricted
5. Name and Address of Applicant (Include ZIP Code) Monsanto Company 700 14th Street, N.W., Suite 1100 Washington, DC 20005				6. Expedited Review. In accordance with FIFRA Section 3(c)(3) (b)(i), my product is similar or identical in composition and labeling to: EPA Reg. No.					
Check if this	is a new address			Produ	t Name				
			Sec	tion - I					
Amendment - Explain Resubmission in resp	n below. conse to Agency latter	dated		_ <u>x</u>	Final printe Agency lett "Me Too" /	ter dated	1	• to	•
Notification - Explain	below.			Ī	Other - Exp	lain belo	w.		
Explanation: Use addition	nal page(s) if necessar	v. (For section	a Land Sec	tion !! \					**
	n of revised f plication in (3			bel f	or Bucc	aneer	:
			Sect	ion - II	l				·
1. Material This Product Wil			 						
Child-Resistant Packaging	Unit Packaging		Water	Soluble Pa	ickeging		2. Type of	Container Metal	·
No No	Yes No			Plaetic					
* Certification must	If "Yes" Unit Packaging wgt.	No. per container	if "Yes Packaç	Glass			pacify)		
3. Location of Net Contents	Information	4. Size(s) Re	tail Contai	ner .	!	5. Loca	ation of Lab	el Directio	
	Container	7. 0.10(0, 7.0					On Label		panying product
6. Manner in Which Label is	Affixed to Product	Lithog Paper Stanc	raph glued iled		Othe	r			
	define the first			ion - IV	,				
1. Contact Point	items directly below I	for identification	n of indiv	dual to be	contacted,	if neces	ssary, to pr	ocess this	application.)
Name Dr. Russe	ll P. Schneide	er 🧠	_	ricult rector	ural Re	gulat	ion	,	No. (Include Area Code) 783-2460
I certify that the state I scknowledge that an both under applicable	y knowingly false or r		ell attach						6. Date Application Received (Stamped)
2. Signature			Manager, Registrations				552		
4. Typed Name Stephe	5. Date January 14, 1998								

PAPERWORK REDUCTION ACT NOTICE and INSTRUCTIONS

PAPERWORK REDUCTION ACT NOTICE: Public reporting burden for this collection of information is estimated to average 0.85 hour per response, including time for reviewing instructions, searching existing data cources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Chief, Information Policy Branch, (2136), U.S. Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460.

INSTRUCTIONS: This form is to be used for all applications for new registration, and use reregistration, amendment, resubmission, to applications for notifications, final printed labeling, reregistration, etc. In order to process an application for a new registration submitted on this form, the following meterial must accompany the application:

- 1. Certification with Respect to Citation of Data (EPA Form 8570-29). (If not exampted by 40 CFR 152.81 (b) (4));
- 2. Confidential Statement of Formula (EPA Form 8570-4);
- 3. Formulator's Exemption Statement (EPA Form 8570-27):
- 4. Five copies of draft labeling:
- Three copies of any data submitted:
- Authorization letter where applicable;
- 7. Matrices where applicable.

Submission of Labeling - Labeling should first be submitted in the form of draft labels with all applications for new registration. Such draft labels may be in the form of typed label text on 8.5 x 11 inch paper for submission or a mockup of the proposed label. If prepared for mockup, it should be constructed in a way as to facilitate storage in an 8.5 x 11 inch file. Mockup labels significantly smaller than 8.5 x 11 inches should be mounted on 8.5 x 11 inch paper for submission.

Submission of Data - Data submitted in support of this application must be submitted in accordance with PR Notice 86-5.

SPECIFIC INSTRUCTIONS: Please read the instructions listed below before completing this application. First determine the type of registration action, listed in Block A, for which you are submitting this application. For applications submitted in connection with New Registration actions, Sections I, III, and IV must be completed by the applicant. For applications submitted in connection with amended reregistration actions, resubmissions, notifications, reragistrations, etc., Sections I, II, and IV must be completed by the applicant. Block, A , Check the appropriate action for which you are submitting this form.

SECTION 1 - This section must be completed, as applicable, for all registration actions.

- 1. Company/Product Number Insert your Company Number, if one has been assigned by EPA. This number may have been assigned to you as a basic registrant, a distributor, or as an establishment. If your product is registered, insert the Product Number.
- 2. · EPA Product Manager If known, fill in the name and PM number of the EPA Product Manager,......
- 3. Proposed Classification Specify the proposed classification of this product. 😔
- 4. Product Name Enter the complete product name of this pesticide as it will appear on the label. The name must be specific to this product only. Duplication of names is not permitted among products of the same company. Do not include any brand name or company line designations.
- 5. Name and Address of Applicant The name of the firm or person and address shown in your application is the person or firm to whom the registration will be issued. If you are acting in behalf of enother party, you must submit authorization from that party to act for them in registration matters. An applicant not residing in the United States must have an authorized agent residing in the United States to act for them in all registration matters. The name and complete mailing address of such an agent must accompany this application.
- 6. Expedited Review FIFRA section 3 (c) 3 (B) provides for expedited review of applications for registration, or amendments to existing registrations, that are similar or identical to other pesticide products that are currently registered with the EPA. In order for your application to be eligible for expedited review, you must provide us with the EPA Registration Number and product name of the product you believe is similar to or identical to your product. The product must be similar or identical in both formulation and labeled uses.

Supplied to the state of the second J. Burney for SECTION II - This section must be completed for all applications submitted to amend the registration only of a currently registered product (Amendment), for a resubmission in response to an Agency letter, for notifications to the Agency, for the submission of final printed lebeling, for: reregistration and for any other action that pertains to a specific EPA-registered product. This section is not to be used for a new application for registration. 1.....

1. Subject of subtniceion - Check the applicable block and provide the Agency letter date if appropriate. Provide a brief explanation of the purpose(s) for the submission, such as "the addition of a site, past or crop (specify)" armend the Confidential Statement of Formula by..."; "reregistration submission"; "general label revision of use directions." Attach a separate page if additional space is needed.

SECTION III. (Packaging and Container Information) - This Section must be completed for all applications submitted in connection with new registration or applicable amendments.

- 1. Type of Packaging Check the appropriate block if your product will be packaged in the indicated packaging types. Indicate the size of the individual packets and number per retail container.
- 2. Type of Rates Container Indicate type of container in which product will be marketed. 19 1951
- 3. Location of Net Contents Indicate the location of the net contents information for your product.
- 4. Size(s) of Retail Container Specify the net contents of all retail containers for your product.
- 5. Location of Use Directions Indicate the location of the use directions for your product.
- 6. Manner in which label is affixed to product Indicated the method product label is attached to retail container. .

SECTION IV (Contact Point) - This Section must be completed for all applications for Registration actions, i.e., new products registration, resubmission, "me-top," reregistration, etc.

- 1-5. Self-explanatory,
- 6. EPA Use Only.

Stephen J. Trutt

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SUPPLEMENTAL LABELING

READ AND FOLLOW THE ENTIRE LABEL BOOKLET FOR ROUNDUP® HERBICIDE BEFORE PROCEEDING WITH THE USE DIRECTIONS CONTAINED IN THIS SUPPLEMENTAL LABELING.

"Label" as used in this supplemental labeling refers to the label booklet for ROUNDUP herbicide and this supplement

Submitted 18. Mar. 94
18. Mar. 91
18. Mar. 91
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18. Mar. 91 Round

EPA Reg. No. 524-445

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FOR AERIAL APPLICATION IN CALIFORNIA ONLY.

Keep out of reach of children.

WARNING! AVISO!

In case of an emergency involving this product, Call Collect, day or night, (314) 694-4000.

ROUNDUP® is a registered trademark of Monstanto Company.

DIRECTIONS FOR USE

It is a violation of Federal law to use this orreture in any manner inconsistent with its lebeling.

This label must be in the posteration of the user at the time of the herbicide application,

See "GENERAL INFORMATION" and "MEXING, ADDITIVES and APPLICATION INSTRUC-TIONS' sections of the Roundup label, bholdel for essential product performance information.

See the "CROPPING SYSTEMS" of the label booldet for specific recommendations on the use of this product.

EXTREME CARE MUST BE EXERCISED TO AVOID CONTACT OF SPRAY WITH FOLIAGE. GREEN STEMS, OR FRUIT OF DESIRABLE CROPS, PLANTS, TREES, OR OTHER DESIR-ABLE VEGETATION SINCE SEVERE DAMAGE OR DESTRUCTION MAY RESULT.

Asial applications of this product are allowed in the following situations:

- 1. In follow and reduced fillings systems prior to the emergence or transplanting of labeled отора.
- 2. In cotton, prior to harvest, Refer to the ROUNDUP® booklet for specific pre harvest Application instructions.

Do not plant subsequent crops other than those listed in the label booklet for this product for 30 . days following application.

When applied as recommended, under the confidence described, this product controls

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annual and perennial vegets lighed in the label booldet.

DO NOT EXCEED A MAXIMUM RATE OF 1 QUART PER ACRE OF THIS PRODUCT WHEN MAKING APPLICATIONS BY AIR.

AERIAL EQUIPMENT

Use the recommended rates of this product in 3 to 15 gallons of water per sare.

Do not apply to water, to areas where surface water is present or to intertidal areas below the ean high water murk. Do not contaminate water when disposing of equipment weathwaters.

AVOID DRIFT - DO NOT APPLY WHEN WINDS ARE GUSTY OR UNDER ANY OTHER COND-TION WHICH WILL ALLOW DRIFT. DRIFT MAY CAUSE DAMAGE TO ANY VEGETATION CONTACTED TO WHICH TREATMENT IS NOT INTENDED. TO PREVENT INJURY TO ADJACENT DESIRABLE VEGETATION, AP-PROPRIATE BUFFER ZONES MUST BE MAINTAINED.

Use the following guidelines when serial applications are made near crops or desirable perennial vegetation after bud break and before total les drop, and/or near other desirable vegetation or annual cross.

- 1. Do not apply within 100 feet of all desirable vegetation or croo(s).
- 2. If wind up to 5 miles per hour is blowing todesirable vapatation or crop(s), do not apply within 500 hundred feet of desirable vegetation or crop(s).
- 3. Winds blowing from 5 to 10 miles per hour toward desirable vegetation may require buffer zones in excess of 500 feet.

4. Do not apply when winds are in excess of 10 miles per hour or when inversion conditions

Coarse aprays are less thely to drift therefore. do not use nazzies or nazzie configurations which disperse spray as fine spray droplets. Do not engle receive forward into the wintream and do not incressus nazzle pressure.

Drift control additives may be used. When a drift control addition is used, med and constully observe the cautionary statements and all other information and all other information appearing on the additive label.

Ensure uniform application - to evoid streaked, uneven or overlapped application, use appropriate merting devices.

Thoroughly week sircraft, especially landing genr, effer each day of epraying to remove residues of this product accumulated during springing or form spills, PROLONGED EXPO-SURE OF THIS PRODUCT TO UNCOATED STEEL SURFACES MAY RESULT IN CORRO-SION AND POSSIBLE FAILURE OF THE PART, LANDING GEAR IS MOST SUSCEPTI-BLE. The maintenance of an organic coating (paint) which meets serospace specification Mt.-C-38413 may prevent corresion.

Read the LIMIT of WARRANTY AND LIABEL-TTY in the label booklet for Roundup herbickle before using this product. Those terms apply to this supplemental labeling and if those terms are not acceptable, return the product unopened at Office.

21001S1-2-3/17/94

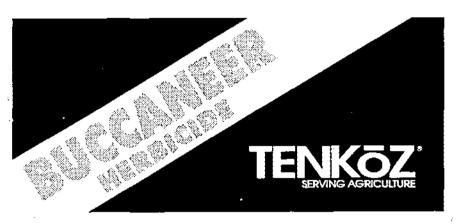
OMONSANTO COMPANY 1994

MONSANTO COMPANY AGRICULTURAL PRODUCTS ST. LOUIS, MO 63167

SUPPLEMENTAL LABELING

READ AND FOLLOW THE ENTIRE LABEL BOOKLET FOR BUCCANEER®
HERBICIDE BEFORE PROCEEDING WITH THE USE DIRECTIONS
CONTAINED IN THIS SUPPLEMENTAL LABELING.

"Label" as used in this supplemental labeling refers to the label booklet for Buccaneer herbicide and this supplement.



EPA Reg. No. 524-445-55467

Buccaneer is a registered trademark used under license.

FOR AERIAL APPLICATION IN CALIFORNIA ONLY

Keep out of reach of children.

WARNING! AVISO!

In case of an emergency involving this product, Call Collect, day or night, 314-694-4000.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in any manner inconsistent with its labeling.

This label must be in the possession of the user at the time of the herbicide application.

See "GENERAL INFORMATION" and "MIXING, ADDITIVES and APPLICATION INSTRUCTIONS" sections of the Buccaneer herbicide label booklet for essential product performance information.

See the "CROPPING SYSTEMS" section of the label booklet for specific recommendations on the use of this product.

EXTREME CARE MUST BE EXER-CISED TO AVOID CONTACT OF SPRAY WITH FOLIAGE, GREEN STEMS, OR FRUIT OF DESIRABLE CROPS, PLANTS, TREES OR OTHER DESIR-ABLE VEGETATION, SINCE SEVERE DAMAGE DR DESTRUCTION MAY RESULT.

Aerial applications of this product are allowed in the following situations.

- In fallow and reduced tiliage systems prior to the emergence or transplanting of labeled crops.
- In cotton, prior to harvest. Refer to the Buccaneer herbicide booklet for specific preharvest application instructions.

Do not plant subsequent crops other than those listed in the label booklet for this product 30 days following application.

When applied as recommended under the conditions described, this product controls annual and perennial weeds listed in the label booklet.

DO NOT EXCEED A MAXIMUM RATE OF 1 QUART PER ACRE DF THIS PRODUCT WHEN MAKING APPLICATIONS BY AIR.

Aerial Equipment

Use the recommended rates of this product in 3 to 15 gallons of water per acre.

Do not apply to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters.

AVOID DRIFT—DO NOT APPLY WHEN WINDS ARE GUSTY OR UNDER ANY OTHER CONDITION WHICH WILL ALLOW DRIFT. DRIFT MAY CAUSE DAMAGE TO ANY VEGETATION CONTACTED TO WHICH TREATMENT IS NOT INTENDED. TO PREVENT INJURY TO ADJACENT DESIRABLE VEGETATION, APPROPRIATE BUFFER ZONES MUST BE MAINTAINED.

Use the following guidelines when aerial applications are made near crops or desirable perennial vegetation atter bud break and before total leaf drop, and/or near other desirable

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vegetation or annual crops.

- Do not apply within 100 feet of all desirable vegetation or crop(s).
- If wind up to 5 miles per hour is blowing toward desirable vegetation or crop(s), do not apply within 500 feet of the desirable vegetation or crop(s).
- Winds blowing from 5 to 10 miles per hour toward desirable vegetation may require buffer zones in excess of 500 feet.
- Do not apply when winds are in excess of 10 miles per hour or when inversion conditions exist.

Coarse sprays are less likely to drift; therefore, do not use nozzles or nozzle configurations which dispense spray as fine spray droplets. Oo not angle nozzles forward into the airstream and do not increase nozzle pressure.

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Drift control additives may be used. When a drift control additive is used, read and carefully observe the cautionary statements and all other information appearing on the additive label. Ensure uniform application—To avoid streaked, uneven or overlapped application, use appropriate marking devices.

Thoroughly wash aircraft, especially landing gear, after each day of spraying to remove residues of this product accumulated during spraying or from spills. PROLONGED EXPOSURE OF THIS PRODUCT TO UNCOATEO STEEL SURFACES MAY RESULT IN CORROSION AND POSSIBLE FAILURE OF THE PART. LANOING GEAR IS MOST SUSCEPTIBLE. The maintenance of an organic coating (paint) which meets aerospace specification MIL-C-38413 may prevent corrosion.

Read the "LIMIT OF WARRANTY AND LIABILITY" in the label booklet for Buccaneer herbicide before using this product. Those terms apply to this supplemental labeling and if those terms are not acceptable, return the product unopened at once.

Manufactured for: Tenkoz Inc. 100 North Point Center E. Suite 330 Alpharetta, GA 30022 U.S.A.

21147V1-6

11/5/97

Monsanto

Monsanto Company Suite 1100 700 14th Street, N.W. Washington, D.C. 20005

November 5, 1997

Hand Delivered

Office of Pesticide Programs
Document Processing Center (NOTIF)
U.S. Environmental Protection Agency
Room 266A, Crystal Mall #2
1921 Jefferson Davis Highway
Arlington, VA 22202

Attention:

Mr. James A. Tompkins (7505C)

Team Leader (25)

Subject:

Buccaneer® Herbicide: EPA Reg. No. 524-445-55467

Supplemental Labeling for Aerial Application in California

Dear Mr. Tompkins:

In an accompanying letter also dated 5-Nov-97, Monsanto has requested that the Agency grant a Distributor Supplemental registration allowing Tenkoz Inc. to distribute "Buccaneer Herbicide", a new brand name for EPA Registration Number 524-445.

In order to allow applications of Buccaneer Herbicide by air in California, as referenced in the booklet labeling, Monsanto wishes to extend the aerial supplemental label previously approved for Roundup® Herbicide on the same 524-445 EPA Registration Number to Buccaneer. We enclose five (5) copies of the new supplemental label and a completed form 8570-1 for your records.

If you have any questions on this matter please feel free to contact me through Dr. Russell P. Schneider or directly at 314-694-1582.

Sincerely.

Stephen J. Wratten Manager, Registrations

.cc:

R. P. Schneider

D. Fee-White

D. Rasmusson

F. Hedgecock

Please read instructions or	reverse before completi.	ng form.		Form Approve	d. OMB No. 20	70-0060.	Approval_expires 05-31-98		
\$EPA	United States Environmental Protection Agency				Registra		OPP Identifier Number		
	Washington, DC 20460			x	Other		255223		
		Application	on for Pestic	ide - Section	n I				
1. Company/Product Numb	524-445-	55467		Product Manager . James Tor		ا	pposed Classification		
4. Company/Product (Name) ? ?? Buccaneer® Herbicide				PM# 25					
5. Name and Address of Applicant (Include ZIP Code) Monsanto Company 700 14th Street, N.W., Suite 1100 Washington, DC 20005				6. Expedited Review. In accordance with FIFRA Section 3(c)(3) (b)(i), my product is similar or identical in composition and labeling to: EPA Reg. No.					
Check if th	nis is a new address		Produ	uct Name					
			Section -	11					
Amendment - Exple				Final printed lat Agency letter d	ated	to			
Notification - Explai	sponse to Agency letter d		<u> </u> _	"Me Too" Appl			•		
X 3	n detow.			Other - Explain			<u> </u>		
previousl	of the aerial s y approved for o r Herbicide".								
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1. Material This Product W	/iil Be Packaged In:						<u> </u>		
Child-Resistent Packaging	Unit Packaging		Water Soluble	Peckeging	2. Type of	Container			
Yes* ;	Yes		Yes			Metal Plastic			
No No	No No		L No			Glass	΄ ΄ ΄ ΄ ΄ ΄ ΄ ΄ ΄ ΄ ΄ ΄ ΄ ΄ ΄ ΄ ΄ ΄ ΄		
* Certification must se submitted	If "Yes" Unit Packaging wgt.	No. per container	If "Yes" Package wgt	No. per container	$\rceil \vdash$	Paper Other (S	pecity)		
3. Location of Nat Content	s Information 4	I. Size(s) Re	tail Container		Location of Lab		ns panying product		
6. Manner in Which Label i		Lithog Paper	raph glued	Other _		ing accom			
	<u>.</u>	Stenc	iled	12.			· <u> </u>		
1. Contact Point <i>(Complet</i>	in inner discussive below do		Section - I			ob:-			
Nama ,	B Items orectly below to	toenmeend		•	· · ·				
Ðr. Russel	l P. Schneider		Agricu Oirecte	ltural Regu or	lation		783-2460		
	ements I have made on t iny knowingly false or mi e law.		all attachments th				Date Application Received (Stamped)		
2. Signature	11111		3. Title				1: "		
teen!	11 parts		Manager	Manager, Registrations					
4. Typed Name Stephe	n J. Wratten, Ph	n.D.	5. Date Nove	ember 5, 19	97		5.7		

PAPERWORK REDUCTION ACT NOTICE and INSTRUCTIONS

PAPERWORK REDUCTION ACT NOTICE: Public reporting burden for this collection of information is estimated to average 0.85 hour per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Sand comments regarding the burden estimate or any other espect of this collection of information, including suggestions for reducing this burden, to Chief, Information Policy Branch, (2136), U.S. Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460.

INSTRUCTIONS: This form is to be used for all applications for new registration, end use reregistration, amendment, resubmission, to applications for notifications, final printed labeling, reregistration, etc. In order to process an application for a new registration submitted on this form, the following material must accompany the application:

- 1. Certification with Respect to Citation of Data (EPA Form 8570-29). [If not exempted by 40 CFR 152.81 (b) (4)];
- Confidential Statement of Formula (EPA Form 8570-4);
- Formulator's Exemption Statement (EPA Form 8570-27);
- 4. Five copies of draft lebeling:
- 5. Three copies of any data submitted;
- Authorization letter where applicable;
- 7. Matrices where applicable.

Submission of Labeling - Labeling should first be submitted in the form of draft labels with all applications for new registration. Such draft labels may be in the form of typed label text on 8.5 x 11 inch paper for submission or a mockup of the proposed label. If prepared for mockup; it should be constructed in a way as to facilitate storage in an 8.5 x 11 inch file. Mockup labels significantly smaller than 8.5 x 11 inches should be mounted on 8.5 x 11 inch paper for submission.

Submission of Data - Data submitted in support of this application must be submitted in accordance with PR Notice 85-5.

SPECIFIC INSTRUCTIONS: Please read the instructions listed below before completing this application. First determine the type of registration action, listed in Block A, for which you are submitting this application. For applications submitted in connection with New Registration actions, Sections I, III, and IV must be completed by the applicant. For applications submitted in connection with amended reregistration actions, resubmissions, notifications, reregistrations, etc., Sections I, II, and IV must be completed by the applicant.

Block A - Check the appropriate action for which you are submitting this form.

SECTION I - This section must be completed, as applicable, for all registration actions.

- 1. Company/Product Number Insert your Company Number, if one has been assigned by EPA. This number may have been assigned to you as a basic registrant, a distributor, or as an establishment. If your product is registered, insert the Product Number.
- 2. EPA Product Manager of known, fill in the name and PM number of the EPA Product Manager.
- 3. Proposed Classification Specify the proposed classification of this product.
- 4. Product Name Enter the complete product name of this pesticide as it will appear on the label. The name must be specific to this product only. Duplication of names is not permitted among products of the same company. Do not include any brand name or company line designations and
- 5. Name and Address of Applicant The name of the firm or person and address shown in your application is the person or firm to whom the registration will be issued. If you are acting in behalf of another party, you must submit authorization from that party to act for them in registration matters. An applicant not residing in the United States must have an authorized agent residing in the United States to act for them in all registration matters. The name and complete mailing address of such an agent must accompany this application.
- 6. Expedited Review FIFRA section 3 (c),3 (B) provides for expedited review of applications for registration, or amendments to existing registrations, that are similar or identical to other posticide products that are currently registered with the EPA. In order for your application to be eligible for expedited review, you must provide us with the EPA Registration Number and product name of the product you believe is similar to or identical in both formulation and labeled uses.

SECTION II - This section must be completed for all applications submitted to amend the registration only of a currently registered product (Amendment), for a resubmission in response to an Agency letter, for notifications to the Agency, for the submission of final printed labeling, for reregistration and for any other action that pertains to a specific EPA-registered product. This section is not to be used for a new application for registration.

Subject of submission - Check the applicable block and provide the Agency letter data if appropriate. Provide a brief explanation of the purpose(s) for the submission, such as "the eddition of a site, pest or crop (specify)"; "amend the Confidential Statement of Formula by..."; "raregistration submission"; "general label revision of use directions." Attach a separate page if additional space is needed.

SECTION III (Packaging and Container Information) - This Section must be completed for all applications submitted in connection with new registration or applicable amendments.

- Type of Packaging Check the appropriate block if your product will be packaged in the indicated packaging types.
 Indicate the size of the individual packets and number per retail container.
- 2. Type of Retail Container Indicate type of container in which product will be marketed.
- 3. Location of Net Contents Indicate the location of the net contents information for your product.
- 4. Size(s) of Retail Container Specify the net contents of all retail containers for your product.
- 5. Location of Use Directions Indicate the location of the use directions for your product.

Burnst of Cart will after assets.

6. Manner in which label is affixed to product - Indicated the method product label is attached to retail container.

SECTION IV (Contact Point) - This Section must be completed for all applications for Registration actions, i.e., new products registration, resubmission, "me-too," reregistration, etc.

- 1-5. Self-explanatory.
- 6. EPA Use Driv.

FA Form: 2570-1 (Rev. 8-94) Provious editions are obsulate.

Monsanto

Monsanto Company Suite 1100 700 14th Street, N.W. Washington, D.C. 20005

January 9, 1998

Hand Delivered

Office of Pesticide Programs
Document Processing Center (Final Printed Labeling)
U.S. Environmental Protection Agency
Room 266A, Crystal Mall #2
1921 Jefferson Davis Highway
Arlington, VA 22202

Attention:

Mr. James A. Tompkins (7505C)

Team Leader (25)

Subject:

4

Buccaneer® Herbicide (EPA Reg. No. 524-445-55467)

Final Printed Label Booklets

Responsive to Notification dated 5-Nov-97

Dear Mr. Tompkins:

On 5-Nov-97, Monsanto notified the Agency that Tenkoz Inc. will provide growers with a new distributor product under EPA Reg. No. 524-445 using brand name "Buccaneer Herbicide". Although Monsanto realizes that the Agency does not require submission of labeling for distributor products, herein we provide three (3) copies of the final printed booklet labeling should you desire copies in your files.

If you have any questions on this matter please feel free to contact me through Dr. Russell P. Schneider or directly at 314-694-1582.

Sincerely

Stephen J. Wratten Manager, Registrations

cc: R. P. Schneider

Kathy Estes, Tenkoz (letter only)

561

FACSIMILE: (202) 783-2468

\$EPA	United States Environmental Protection Agency Washington, DC 20460			Registration Amendment		OPP Identifier Number	
Application for Pesticide - Sec				× Other		600601	
1. Company/Product Number	 	OII IOI P	2. EPA Product Mar Mr. James J	nager	3. Pro	pposed Classification	
4. Company/Product (Name) Buccaneer	® Herbicide		PM# 25	· ·		None Restricted	
5. Name and Address of App Monsanto Comp 700 14th Stre Washington, D	6. Expedited Review. In accordance with FIFRA Section 3(c)(3) (b)(i), my product is similar or identical in composition and labeling to: EPA Reg. No. Product Name						
		Sec	tion - II				
Amendment - Explain Resubmission in resp. Notification - Explain	onse to Agency letter dated		Agency let	od labels in response ter dated Application. plain below.	to	2	
Final printed	llabel booklets						
		Sect	tion - III				
1. Material This Product Will Child-Resistent Packaging Yea* No Certification must Submitted	Be Peckaged In: Unit Packaging Yes No If. "Yes" Unit Packaging wgt. No. par	If "Yes	Saluble Packaging Yes No S No. per ge wgt cantain	2. Type of	Motel Pleetic Glass Paper	spacify)	
3. Location of Net Contents	Information 4, Size(s) R	· letail Contai	ner	5. Location of Lab On Label		ons openying product	
6. Manner in Which Label is	Papa	ograph or gluad ocilad	Oth	BF			
1 Contact Point (Complete	items directly below for identifica		tion - IV	<i>.</i>			
Name Dr. Russell		Title Ag	gricultural R irector		Telaphon	e No. (Include Area Code) 783-2450	
I certify that the states I acknowledge that an both under applicable	ay be punishable by f	ine or imprisonment	nplete. or	8. Date Application Received (Stamp#d)			
4. Typed Name Stepho	en J. Wratten, Ph.D.	5. Date	Manager, Regi January 9,	<u> </u>	35.50	562	

PAPERWORK REDUCTION ACT NOTICE and INSTRUCTIONS

PAPERWORK REDUCTION ACT NOTICE: Public reporting burden for this collection of information is estimated to average 0.85 hour per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other espect of this collection of information, including suggestions for reducing this burden, to Chief, Information Policy Branch, (2136), U.S. Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460.

INSTRUCTIONS: This form is to be used for all applications for new registration, end use reregistration, emendment, resubmission, to applications for notifications, final printed labeling, reregistration, etc. In order to process an application for a new registration submitted on this form, the following material must accompany the application:

- 1. Certification with Respect to Citation of Data (EPA Form 8570-29). [If not exempted by 40 CFR 152.81 (b) (4)];
- 2. Confidential Statement of Formula (EPA Form 8570-4);
- 3. Formulator's Exemption Statement (EPA Form 8570-27);
- 4. Five copies of draft labeling;
- 5. Three copies of any date submitted;
- Authorization letter where applicable;
- 7. Matrices where applicable.

Submission of Labeling - Labeling should first be submitted in the form of draft labels with all applications for new registration. Such draft labels may be in the form of typed label text on 8.5 x 11 inch paper for submission or a mockup of the proposed label. If prepared for mockup, it should be constructed in a way as to facilitate storage in an 8.5 x 11 inch file. Mockup labels significantly smaller than 8.5 x 11 inches should be mounted on 8.5 x 11 inch paper for submission.

Submission of Data - Data submitted in support of this application must be submitted in accordance with PR Notice 86-5.

SPECIFIC INSTRUCTIONS: Please read the instructions listed below before completing this application. First determine the type of registration action, listed in Block A, for which you are submitting this application. For applications submitted in connection with New Registration actions, Sections I, III, and IV must be completed by the applicant. For applications submitted in connection with amended reregistration actions, resubmissions, notifications, reregistrations, etc., Sections I, II, and IV must be completed by the applicant.

Block A - Check the appropriate action for which you are submitting this form.

<u>SECTION I</u> - This section must be completed, as applicable, for all registration actions.

- Company/Product Number Insert your Company Number, if one has been assigned by EPA. This number may have been assigned to you as a
 basic registrent, a distributor, or as an establishment. If your product is registered, insert the Product Number.
- 2. EPA Product Manager If known, fill in the name and PM number of the EPA Product Manager.
- 3. Proposed Classification Specify the proposed classification of this product.
- 4. Product Name Enter the complete product name of this pesticide as it will appear on the label. The name must be specific to this product only. Duplication of names is not permitted among products of the same company. Do not include any brand name or company line designations:
- 5. Name and Address of Applicant The name of the firm or person and address shown in your application is the person or firm to whom the registration will be issued. If you are ecting in behalf of another party, you must submit authorization from that party to act for them in registration matters. An applicant not residing in the United States must have an authorized agent residing in the United States to act for them in all registration matters. The name and complete mailing address of such an agent must accompany this application.
- 6. Expedited Review FIFRA section 3 (c) 3 (B) provides for expedited review of applications for registration, or amendments to existing registrations) that are similar or identical to other posticide products that are currently registered with the EPA. In order for your application to be eligible for expedited review, you must provide us with the EPA Registration Number and product name of the product you believe is similar to or identical to your product. The product must be similar or identical in both formulation and labeled uses.

SECTION II - This section must be completed for all applications submitted to amend the registration only of a currently registered product (Amendment), for a resubmission in response to an Agency letter, for notifications to the Agency, for the submission of final printed labeling, for reregistration and for any other action that partains to a specific EPA-registered product. This section is not to be used for a new application for registration.

1. Subject of submission - Check the applicable block and provide the Agency letter date if appropriate. Provide a brief explanation of the purpose(s) for the submission, such as "the addition of a site, pest or crop (specify)"; "amend the Confidential Statement of Formula by..."; "reregistration submission"; "general label revision of use directions." Attach a separate page if additional space is needed.

SECTION III (Packaging and Container Information) - This Section must be completed for all applications submitted in connection with new registration or applicable amendments.

- 1. Type of Packuging ~ Check the appropriate block if your product will be packaged in the indicated packaging types.

 Indicate the size of the individual packets and number per retail container.
- 2. Type of Retail Container Indicate type of container in which product will be marketed.
- 3. Location of Nat Contents Indicate the location of the nat contents information for your product.
- 4. Ectic) of Retail Container Specify the net contents of all retail containers for your product.
- 5. Location of Use Directions Indicate the location of the use directions for your product.
- 6. Manner in which label is affixed to product Indicated the method product label is attached to retail container.

SECTION IV (Contact Point) - This Section must be completed for all applications for Registration actions, i.e., new products registration, resubmission, "me-top," reregistration, etc.

- 1-5. Self-explanatory.,
- 6. EPA Use Only.

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Complete Directions for Use

EPA Reg. No. 524-445-55467

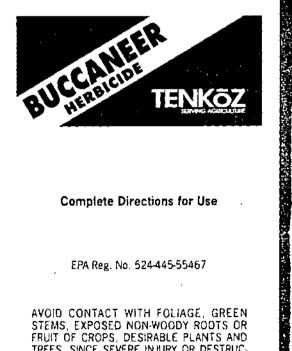
AVOID CONTACT WITH FOLIAGE, GREEN STEMS, EXPOSED NON-WOODY ROOTS OR FRUIT OF CROPS, DESIRABLE PLANTS AND TREES, SINCE SEVERE INJURY OR DESTRUCTION MAY RESULT.

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Complete Directions for Use

EPA Reg. No. 524-445-55467

AVOID CONTACT WITH FOLIAGE, GREEN STEMS, EXPOSED NON-WOODY ROOTS OR FRUIT OF CROPS, DESIRABLE PLANTS AND TREES, SINCE SEVERE INJURY OR DESTRUCTION MAY RESULT.

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Read the entire label before using this product.

Use only according to label instructions.

Read "LIMIT OF WARRANTY AND LIABILITY" before buying or using. If terms are not acceptable, return at once unopened.

REFORMULATION IS PROHIBITED. SEE INDIVIDUAL CONTAINER LABEL FOR REPACKAGING LIMITATIONS.

LIMIT OF WARRANTY AND LIABILITY

This Company warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes set forth in the Complete Directions for Use label booklet ("Directions") when used in accordance with those Directions under the conditions described therein. NO OTHER EXPRESS WARRANTY OR IMPLIED WARRANTY OF FITNESS FOR PARTICULAR PURPOSE OR MERCHANTABILITY IS MADE. This warranty is also subject to the conditions and limitations stated herein.

Buyer and all users shall promptly notify this Company of any claims whether based in contract, negligence, strict liability, other tort or otherwise.

Buyer and all users are responsible for all loss or damage from use or handling which results from conditions beyond the control of this Company, including, but not limited to, incompatibility with products other than those set forth in the Directions, application to or contact with desirable vegetation, unusual weather, weather conditions which are outside the range considered normal at the application site and for the time period when the product is applied, as well as weather conditions which are outside the application ranges set forth in the Directions, application in outside the moisture range specified in the Directions, of the presence of products other than those set forth in the Directions in or on the soil, crop or treated vegetation.

THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE LIMIT OF THE LIABILITY OF THIS COMPANY OR ANY OTHER SELLER FOR ANY AND ALL LOSSES, INJURIES OR DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT (INCLUDING CLAIMS BASED IN CONTRACT, NEGLIGENCE, STRICT LIABILITY OTHER TORT OR OTHERWISE) SHALL BE THE PURCHASE PRICE PAID BY THE USER OR BUYER FOR THE QUANTITY OF THIS PRODUCT INVOLVED, OR, AT THE ELECTION OF THIS COMPANY OR ANY OTHER SELLER, THE REPLACEMENT OF SUCH QUANTITY, OR, IF NOT ACQUIRED BY PURCHASE, REPLACEMENT OF SUCH QUANTITY IN NO EVENT SHALL THIS COMPANY OR ANY OTHER SELLER BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES.

Buyer and all users are deemed to have accepted the terms of this LIMIT OF WARRANTY AND LIABILITY which may not be varied by any verbal or written agreement.

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PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

Keep out of reach of children.

WARNING! AVISO!

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

CAUSES SUBSTANTIAL BUT TEMPORARY EYE INJURY.

HARMFUL IF SWALLOWED OR INHALED.

Do not get in eyes or on clothing.

Avoid breathing vapor or spray mist.

FIRST AID: IF IN EYES, immediately hold eyelids open and flush with plenty of water for at least 15 minutes. Get medical attention.

IF INHALED, remove individual to fresh air. If not breathing give artificial respiration, preferably mouth-to-mouth. Get medical attention.

IF SWALLOWED, this product will cause gastrointestinal tract irritation. Immediately dilute by swallowing water or milk. Get medical attention. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON.

Personal Protective Equipment (PPE)

Applicators and other handlers must wear: long-sleeved shirt and fong pants, shoes plus socks, and protective eyewear. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them, follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

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When handlers use clused application, constitution worker Protection Standard (WPS) for agricultural pesticides (40 CFR 170.240 (d) (4-6)), the handler PPE requirements may be reduced or modified as specified in the WPS.

User Safety Recommendations:

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

In case of an emergency involving this product, Call Collect, day or night, (314) 694-4000.

Environmental Hazards

Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters.

Physical or Chemical Hazards

Spray solutions of this product should be mixed, stored and applied using only stainless steel, aluminum, fiberglass, plastic or plastic-lined steel containers.

DO NOT MIX, STORE OR APPLY THIS PRODUCT OR SPRAY SOLUTIONS OF THIS PRODUCT IN GALVANIZED STEEL OR UNLINED STEEL (EXCEPT STAINLESS STEEL) CONTAINERS OR SPRAY TANKS. This product or spray solutions of this product react with such containers and tanks to produce hydrogen gas which may form a highly combustible gas mixture. This gas mixture could flash or explode, causing serious personal injury, if ignited by open flame, spark, welder's torch, lighted cigarette or other ignition source.

ACTIVE INCREDIENT.

- *Contains 480 grams per titre or 4 pounds per U.S. gallon of the active ingredient glyphosate, in the form of its isopropylamine salt. Equivalent to 356 grams per litre or 3 pounds per U.S. gallon of the acid, glyphosate.

This product is protected by U.S. Patent No. 4,405,531. Other patents pending. No license granted under any non-U.S. patent(s).

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in any manner inconsistent with its labeling. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulations.

Agricultural Use Requirements

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontainination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is: coveralls, waterproof gloves, shoes plus socks, and protective evewear.

Non-Agricultural Use Requirements

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries or greenhouses.

Keep people and pets off treated areas until spray solution has dried to prevent transfer of this product onto desirable vegetation.

For more product information, call your nearest Tenkoz member Company representative.

Storage and Disposal

Do not contaminate water, foodstuffs, feed or seed by storage or

See container label for STORAGE AND DISPOSAL instructions.

GENERAL INFORMATION

DO NOT APPLY THIS PRODUCT USING AERIAL SPRAY EQUIPMENT EXCEPT UNDER CONDITIONS AS SPECIFIED WITHIN THIS LABEL.

This product, a water soluble liquid, mixes readily with water to be applied as a foliar spray for the control or destruction of most herbaceous plants. It may be applied through most standard industrial or field-type sprayers after dilution and thorough mixing with water in accordance with label instructions.

This product moves through the plant from the point of foliage contact to and into the root system. Visible effects on most annual weeds occur within 2 to 4 days, but on most perennial weeds may not occur for 7 days or more. Extremely cool or cloudy weather following treatment may slow activity of this product and delay visual effects of control. Visible effects are a gradual wilting and yellowing of the plant which advances to complete browning of above-ground growth and deterioration of underground plant parts.

Unless otherwise specified on this label, delay application until vegetation has emerged and reached the stages described for control of such vegetation under the "MEEDS CONTROLLEO" section of this label. Unemerged plants arising from unattached underground rizomes or root stocks of perennials will not be affected by the herbicide and will continue to grow. For this reason, best control of most perennial weeds is obtained when treatment is made at late growth stages approaching maturity.

Always use the higher rate of this product per acre within the recommended range when (1) weed growth is heavy or dense, or (2) weeds are growing in an undisturbed (noncultivated) area.

Oo not treat weeds under poor growing conditions such as drought stress, disease or insect damage, as reduced weed control may result. Reduced results may also occur when treating weeds heavily covered with dust.

Reduced control may result when applications are made to annual or perennial weeds that have been mowed, grazed, or cut, and have not been allowed to regrow to the recommended stage for treatment.

Rainfall or irrigation occurring within 6 hours after application may reduce effectiveness. Heavy rainfall or irrigation within 2 hours after application may wash the chemical off the foliage and a repeat treatment may be required.

This product does not provide residual weed control. For subsequent residual weed control, follow a label-approved herbicide program. Read and carefully observe the cautionary statements and all other information appearing on the labels of all herbicides used.

Buyer and all users are responsible for all loss or damage in connection with the use or handling of mixtures of this product with herbicides or other materials that are not expressly recommended in this labeling. Mixing this product with herbicides or other materials not recommended on this label may result in reduced performance.

For best results, spray coverage should be uniform and complete. Do not spray weed foliage to the point of runoff.

DOMESTIC ARIMALS: This product is considered to be relatively nonloxic to dogs and other domestic animals; however, ingestion of this product of large amounts of freshly sprayed vegetation may result in temporary gastrointestinal irritation (vomiting, diarrhea, colic, etc.), if such symptoms are observed, provide the animal with prenty of fluids to prevent dehydration. Call a veterinarian if symptoms persist for more than 24 hours.

ATTENTION

AVOID DRIFT, EXTREME CARE MUST BE USED WHEN APPLYING THIS PRODUCT TO PREVENT HUURY TO DESIRABLE PLANTS AND CROPS.

Do not allow the herbicide solution to mist, drip, drift or splash onto desirable vegetation since minute quantities of this product can cause severe damage or destruction to the crop, plants or other areas on which treatment was not intended. The likelihood of injury occurring from the use of this product is greatest when winds are gusty or in excess of 5 miles per hour or when other conditions, including lesser wind velocities, will allow spray drift to occur. When spraying, avoid combinations of pressure and nozzle type that will result in splatter or fine particles (mist) which are likely to drift. AVOID APPLYING AT EXCESSIVE SPEED OR PRESSURE.

NOTE: Use of this product in any manner not consistent with this label may result in injury to persons, animals or crops, or other unintended consequences. Keep container closed to prevent spills and contamination.

MIXING, ADDITIVES AND APPLICATION INSTRUCTIONS

APPLY THESE SPRAY SOLUTIONS IN PROPERLY MAINTAINED AND CALIBRATED EDUIPMENT CAPABLE OF DELIVERING DESIRED VOLUMES. DO NOT APPLY WHEN WIND OR DIHER CONDITIONS FAVOR

DRIFT. HAND-GUN APPLICATIONS SHOULD BE PROPERLY DIRECTED TO AVOID SPRAYING DESIRABLE PLANTS. NOTE: REDUCED RESULTS MAY OCCUR IF WATER CONTAINING SOIL IS USED, SUCH AS WATER FROM PONDS AND UNLINED DITCHES.

MIXING

This product mixes readily with water. Mix spray solutions of this product as follows: Fill the mixing or spray tank with the required amount of water. Add the recommended amount of this product (see the "DIRECTIONS FOR USE" and "WEEOS CONTROLLED" sections of this label) near the end of the filling process and mix well. Use caution to avoid siphoning back into the carrier source. Use approved anti-back-siphoning devices where required by state or local regulations. During mixing and application, loaming of the spray solution may occur. To prevent or minimize toam, avoid the use of mechanical agitators, terminate by-pass and return lines at the bottom of the tank and, if needed, use an approved anti-foam or defoaming agent.

TANK MIXTURES

Always predetermine the compatibility of labeled tank mixtures of this product with water carrier by mixing small proportional quantities in advance

Mix labeled tank mixtures of this product with water as follows:

- 1. Place a 20 to 35 mesh screen or wetting basket over filling port.
- 2. Through the screen, fill the spray tank one-half full with water and start agitation.
- If a wettable powder is used, make a sturry with the water carrier, and add it SLOWLY through the screen into the tank. Continue actiation
- If a flowable formulation is used, premix one part flowable with one part water. Add diluted mixture SLOWLY through the screen into the tank. Continue agitation.
- If an emulsifiable concentrate formulation is used, premix one part emulsifiable concentrate with two parts water, Add diluted mixture slowly through the screen into the tank. Continue agitation.
- Continue filling the spray tank with water and add the required amount of this product near the end of the filling process.
- Where nonionic surfactant is recommended, add this to the spray tank before completing the filling process.
- Add individual formulations to the spray tank as follows: wettable powder, flowable, emulsifiable concentrate, drift control additive, water soluble liquid followed by surfactant.

Maintain good agitation at all times until the contents of the tank are sprayed. If the spray mixture is allowed to settle, thorough agitation is required to resuspend the mixture before spraying is resumed.

Keep by-pass line on or near bottom of tank to minimize toaming. Screen size in nozzle or line strainers should be no finer than 50 mesh. Carefully select proper nozzle to avoid spraying a fine mist. For best results with conventional ground application equipment, use flat fan nozzles.

Clean sprayer and parts immediately after using this product by thoroughly flushing with water.

ADDITIVES

SURFACTANTS

Nonionic surfactants which are labeled for use with herbicides may be used. Do not reduce rates of this product when adding surfactant. When adding additional surfactant, use 0.5 percent surfactant concentration (2 quarts per 100 gallons of spray solution) when using surfactants which contain at least 70 percent active ingredient or a 1 percent surfactant concentration (4 quarts per 100 gallons of spray solution) for those surfactants containing less than 70 percent active ingredient. Read and carefully observe surfactant cautionary statements and other information appearing on the surfactant labet.

AMMONIUM SULFATE

The addition of i to 2 percent dry ammonium sulfate by weight or $8.5\,$ to 17 pounds per 100 gallons of water may increase the performance of this product, and this product plus 2,4-D. Banvel™ or residual herbicide tank mixtures on annual and perennial weeds. The improvement in performance may be apparent where environmental stress is a concern. Low-quality ammonium sulfate may contain material that will not readily dissolve, which could result in nozzie tip plugging. To determine quality, perform a jar test by adding 1/3 cup of ammonium sulfate to 1 gallon of water and agitate for 1 minute. If undissolved sediment is observed, predissolve the ammonium suitate in water and filter prior to addition to the spray tank, If ammonium sulfate is added directly to the spray tank, add slowly with agitation. Adding too quickly may clog outlet line. Ensure that ammonium sulfate is completely dissolved in the spray lank before adding herbicides or surfactant. Thoroughly rinse the spray system with clean water after use to reduce corrosion.

NOTE: The use of ammonium sulfate as an additive does not preclude the need for additional surfactant. Do not use herbicide rates lower than recommended in this label.

COLORANTS OR DYES

Agriculturally-approved colorants or marking dyes may be added to this product. Colorants or dyes used in spray solutions of this product may reduce performance, especially at lower rates or dilutions. Use colorants or dyes according to the manufacturer's recommendations.

APPLICATION EQUIPMENT AND TECHNIQUES

Do not apply this product through any type of irrigation system.

This product may be applied with the following application equipment:

Aerial—Fixed Wing and Helicopter

Broadcast Spray

Controlled Droplet Applicator (CDA)—Hand-held or boommounted applicators which produce a spray consisting of a narrow range of droplet sizes.

Hand-Held and High-Yolume Spray Equipment—Knapsack and backpack sprayers, pump-up pressure sprayers, handguns, handwands, mistblowers*, lances and other hand-held and motorized spray equipment used to direct the spray onto weed foliage.

*This product is not registered in California or Arizona for use in mistblowers.

Selective equipment—Recirculating sprayers, shielded sprayers and wiper applicators.

See the appropriate part of this section for specific instructions and rates of application.

AERIAL EQUIPMENT

Use the recommended rates of this herbicide in 3 to 15 gallons of water per acre unless otherwise specified on this label. See the "WEEDS CONTROLLED" section of this label for specific rates. Unless otherwise specified, do not exceed I quart per acre. Aerial applications of this product may be made in annual cropping conventional tillage systems, fallow and reduced tillage systems and preharvest applications. Refer to the individual use area sections of this label for recommended volumes and application rates. FOR AERIAL APPLICATION IN CALIFORNIA, REFER TO THE FEDERAL SUPPLEMENTAL LABEL FOR AERIAL APPLICATIONS IN THAT STATE FOR SPECIFIC INSTRUCTIONS, RESTRICTIONS AND REQUIREMENTS.

Avoid direct application to any body of water.

AVOID DRIFT—DO NOT APPLY DURING LOW-LEVEL INVERSION CON-DITIONS, WHEN WINDS ARE GUSTY OR UNDER ANY OTHER CONDI-TION WHICH FAVORS DRIFT. DRIFT MAY CAUSE DAMAGE TO ANY VEGETATION CONTACTED TO WHICH TREATMENT IS NOT INTENDED. TO PREVENT INJURY TO ADJACENT DESIRABLE VEGETATION, APPRO-PRIATE BUFFER ZONES MUST BE MAINTAINED.

Coarse sprays are less likely to drift; therefore, do not use nozzles or nozzle configurations which dispense spray as line spray droplets. Do not angle nozzles forward into the airstream and do not increase spray volume by increasing nozzle pressure.

Drift control additives may be used. When a drift control additive is used, read and carefully observe the cautionary statements and all other information appearing on the additive tabel.

Ensure uniform application—To avoid streaked, uneven or overlapped application, use appropriate marking devices.

Thoroughly wash aircraft, especially landing gear, after each day of spraying to remove residues of this product accumulated during spraying or from spills. PRODUCT TO UNCDATED STEEL SURFACES MAY RESULT IN CORROSION AND POSSIBLE FAILURE OF THE PART. LANDING GEAR ARE MOST SUSCEPTIBLE. The maintenance of an organic coating (paint), which meets aerospace specification MIL-C-38413, may prevent corrosion.

This product plus Oust^M, Banvel or 2,4-D tank mixtures may not be applied by air in California.

■ BROADCAST EQUIPMENT

For control of annual or perennial weeds fisted on this label using broadcast equipment—Use the recommended rates of this product in 3 to 40 gallons of water per acre as a broadcast spray unless otherwise specified on this label. See the "WEEDS CONTROLLED" section of this tabel for specific rates. As density of weeds increases, spray volume should be increased within the recommended range to ensure complete coverage. Carefully select proper nozzle to avoid spraying a line mist. For best results with ground application equipment, use flat fan nozzles. Check for even distribution of spray droplets.

CONTROLLED DROPLET APPLICATION (CDA)

The rate of this product applied per acre by vehicle-mounted CDA equipment must not be tess than the amount recommended in this label when applied by conventional broadcast equipment. For vehicle-mounted CDA equipment, apply 3 to 15 gallons of water per acre.

For the control of labeled annual weeds with hand-held CDA units, apply a 20 percent solution of this product at a flow rate of 2 fluid ounces per minute and a walking speed of 1.5 mph (1 quart per acre). For the control of labeled perennial weeds, apply a 20 to 40 percent solution of this product at a flow rate of 2 fluid ounces per minute and a walking speed of 0.75 mph (2 to 4 quarts per acre).

Controlled droplet application equipment oroduces a spray pattern which is not easily visible. Extreme care must be exercised to avoid spray or drift contacting the foliage or any other green tissue of desirable vegetation, as damage or destruction may result.

NAND-HELD and HIGH-VOLUME EQUIPMENT

Use coarse sprays only.

Mix this product in clean water and apply to foliage of vegetation to be controlled. For applications made on a spray-to-wet basis, spray coverage should be uniform and complete. Do not spray to the point of runoff

for control of annual weeds listed on this label, apply a 0.5 percent solution of this product plus nonionic surfactant to weeds tess than 6 inches in height or runner length. Apply prior to seedhead formation in grass or bud formation in broadleaf weeds. Allow three or more days before tillage or mowing.

For annual weeds over 6 inches tall, or when not using additional surlactant, or unless otherwise specified, use a 1 percent solution. For best results, use a 2 percent solution on harder-to-control perennials, such as bermudagrass, dock, field bindweed, hemp dogbane, milkweed and Canada thistie

When using application methods which result in less than complete coverage, use a 5 percent solution for annual and perennial weeds and a 5 to 10 percent solution for woody brush and trees.

Prepare the desired volume of spray solution by mixing the amount of this product in water as shown in the following table:

Spray Solution

Dasired	_		Amount	of Buccane	eer®	
Volume	1/2%	1%	11/1%	2%	5%	10%
I Gal	2/3 02	11/3 oz	2 07	Z²/1 0z	61/2 oz	13 oz
25 Gat	i pt) at	1+/2 gt	2 at	5 at	10 at
100 Gal	2 qi	l gat	11/2 gal	2 gal	5 gal	10 gal
2 tablespo	ons = 1	fluid gunc	e	~ (0

for use in knapsack sprayers, it is suggested that the recommended amount of this product be mixed with water in a larger container. Fill sprayer with the mixed solution.

SELECTIVE EQUIPMENT

This product may be applied through a recirculating spray system, a shielded applicator, or a wiper applicator after dilution and thorough mixing with water to listed weeds growing in any noncrop site specified on this label and only when specifically recommended in cropping systems.

A recirculating sgray system directs the spray solution onto weeds growing above desirable vegetation, while spray solution not intercepted by weeds is collected and returned to the spray tank for reuse.

A shielded applicator directs the herbicide solution onto weeds, white shielding desirable vegetation from the herbicide.

A wiper applicator applies the herbicide solution onto weeds by rubbing the weed with an absorbent material containing the herbicide solution.

AVOID CONTACT WITH DESIRABLE VEGETATION.

Contact of the herbicide solution with the desirable vegetation may result in damage or destruction. Applicators used above desired vegetation should be adjusted so that the lowest spray stream or wiper contact point is at least 2 inches above the desirable vegetation. Droplets, mist, form, or splatter of the herbicide solution settling on desirable vegetation may result in discoloration, stunting or destruction.

Applications made above the crops should be made when the weeds are a minimum of 6 inches above the desirable vegetation. Better results may be obtained when more of the weed is exposed to the herbicide solution. Weeds not contacted by the herbicide solution will not be affected. This may occur in dense clumps, severe infestations or when the height of the weeds varies so that not all weeds are contacted in these instances, repeat treatment may be necessary.

SHIELDED APPLICATORS

When applied as directed under conditions described for shielded applicators, this product will control those weeds listed in the "YYEEDS CONTROLLED" section of this label.

Use the following equation to convert from a broadcast rate per acre to a band rate per acre.

Band width in inches Row width in inches	X	Herbicide Broadcast RATE per acre	=	Herbicide Band RATE per acre
Band width in inches Row width in inches	X	Broadcast VOLUME of solution per acce	=	Band VOLUME of solution

Use nozzles that provide uniform coverage within the treated area. Keep shields on shielded sprayers adjusted to protect desirable vegetation. EXTREME CARE MUST BE EXERCISED TO AVOID CONTACT WITH DESIRABLE VEGETATION.

For specific rates of application and instructions for control of various annual and perennial weeds, see the "WEEDS CONTROLLED" section of this tabel.

WIPER APPLICATORS

Wiper applicators are devices that physically wipe appropriate amounts of this product directly onto the weed.

Equipment must be designed, maintained and operated to prevent the herbicide solution from contacting desirable vegetation. Operate this equipment at ground speeds no greater than 5 mph. Performance may be improved by reducing speed in areas of heavy weed infestations to ensure adequate wiper saturation. Better results may be obtained if 2 applications are made in opposite directions.

Avoid leakage or dripping onto desirable vegetation. Adjust height of applicator to ensure adequate contact with weeds. Keep wiping surfaces clean. Be aware that, on sloping ground, the herbicide solution may migrate, causing dripping on the lower end and drying of the wicks on the upper end of a wiper applicator.

Do not use wiper equipment when weeds are wet.

Mix only the amount of solution to be used during a 1-day period, as reduced activity may result from use of leftover solutions. Clean wiper parts immediately after using this product by thoroughly flushing with

Do not add surfactant to the herbicide solution.

For Rope or Sponge Wick Applicators - Mix 1 galfon of this product in 2 gallons of water to prepare a 33 percent solution. Apply this solution to weeds listed in this "WIPER APPLICATORS" section.

For Porous-Plastic Applicators--Solutions ranging from 33 to 100 percent of this product in water may be used in porous-plastic wiper applicators.

When applied as recommended under the conditions described for "WIPER APPLICATORS", this product CONTROLS the following weeds:

ANNUAL GRASSES

Corn

Zea mays

Rye, common

Panicum, Texas

Secale cereale

Panicum lexanum

Shattercane Sorghum bicolor

ANNUAL BROADLEAVES

Sicklepod

Starbur, bristly

Cassia obtusifolia

Acanthospermum hispidum

Spanishneedles Bidens bipinnata

When applied as recommended under the conditions described for WIPER APPLICATORS", this product SUPPRESSES the following weeds:

ANNUAL BROADLEAVES

Beggarwead, Florida

Ragweed, giant Ambrosia trifida

Desmodium tortuosum Dogtennet

Sunflower

Eupatorium capitliflorium

Pigweed, redroot

Helianthus annuus

Amaranthus retroflexus

Thistle, musk

Carduus nutans

Ragweed, common Ambrosia artemisiifolia

Velvetleaf Abutilon theophrasti

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PERENNIAL GRASSES

Bermudaerass

Cynodon dactylon

22579hum2

Sporobolus poiretii

Guineagrass

Vaseverass

Panicum maximum

Paspalum urvillei

lohnsongrass

Sorghum halepense

PERENNIAL BROADLEAVES

Dogbane, hemp

Nightshade, silverleaf

Apocynum cannabinum

Solanum elaeagnifolium

Milkweed Ascelepias syriaca Thistle, Canada Cirsium arvense

WEEDS CONTROLLED

This herbicide controls many annual and perennial grasses and broadleaf weeds.

ANNUAL WEEDS

- · Apply to actively growing grass and broadleaf weeds.
- Allow at least 3 days after treatment before tillage.
- · For maximum agronomic benefit, apply when weeds are 6 inches of less in height.
- . To prevent seed production, applications should be made prior to seedhead formation.
- . This product does not provide residual control; therefore, delay application until maximum weed emergence. Repeat treatments may be necessary to control later germinating weeds.

LOW-VOLUME BROADCAST APPLICATION (LOW-RATE TECHNOLOGY)

When applied as directed under the conditions described, this product will control the weeds listed below when:

- 1. Water carrier volumes of 3 to 10 gallons per acre for ground applications and 3 to 5 gallons per acre for aerial applications are recommended. (See the "AERIAL APPLICATION" section of this label for approved sites.)
- 2. A nonionic surfactant is added at 0.5 to 1 percent by total spray volume. Use 0.5 percent surfactant concentration when using surfactants which contain at least 70 percent active ingredient or a 1 percent surfactant concentration for those surfactants containing less than 70 percent active ingredient.

NOTE

- The addition of 2 percent dry ammonium sulfate by weight or 17 pounds per 100 gallons of water may increase the performance of this product on annual weeds. The improvement in performance may be apparent where environmental stress is a concern. Refer to the "MDUNG, ADDITIVES and APPLICATION INSTRUCTIONS" section of this label.
- Oo not lank-mix with soil residual herbicides when using these rates unless otherwise specified.
- For weeds that have been mowed, grazed or cut, allow regrowth to occur prior to treatment,
- Refer to the "TANK MIXTURES" portion of this section for control of additional broadleaf weeds.

WEED SPECIES	MAXIMUM HEIGHT/LENGTH	RATE PER ACRE* (Fluid Ounces)
Foxtail Setaria spp.	12*	8 oz.
Barnyardgrass Echinochloa crus-galli Bluegrass, annual	6" (0 to 4" (4 to 6"	12 az. 16 az.¹) 24 az.¹)
Poa annua Brome, downy** Bromus tectorum	<u> </u>	[
Muxtard, blue Chorispora tenella		
Mustard, tansy Descurainia pinnata	}	
Mustard, tumble Sisymbrium altissimum		
Mustard, wild Sinapis arvensis		
Spurry, umbreita Holosteum umbellatum		
Bartey Hordéum vulgare	12*	}
Rye Secale cereale	Ì	}
Sandbur, field Cenchrus spp.		

Shattercane Sorghum bicolor Stinkgrass		
Eragrostis cilianensis Wheat Iriticum aestiyum	18*	<u> </u>
Momingglory Ipomoea spp. Sicklepod Cassia oblusifolia	2*	16 oz.
Bluegrass, bulbous Poa bulbosa Cheat Bromus secalinus Chickweed, common Stellaria media Chickweed, mouseear Cerastium vulgatum Corn Zea mays Goatgrass, jointed Aegilops cylindrica Groundsel, common Senecio vulgaris Henbit Lamium amplexicaule Horseweed/Marestail Conyza canadensis	6*	

·····	<u></u>	2
WEED SPECIES	MAXIMUM REIGHT/EERGTH	RATE PER ACRE* (Fluid Ounces)
Lambsquarters, common Chenopodium album	6.	16 oz.
Pennycress, field Fanweed Thiaspi arvense		
Rocket, London Sisymbrium irio		
Ryegrass, Italian Lolium multiflorum		
Shepherdspurse Capsella bursa-pastoris		
Spurge, annual Euphorbia spp.		·
Buttercup Ranunculus spp.	12*	
Cocklebur Xanthium strumarium		
Crabgrass Digitaria spp.		
Dwarfdandelion Krigia cespitosa		
Falseflax, smallseed Camelina microcarpa		
Foxtail, Carolina Alopecurus carolinianus		
Johnsongrass, seedling	 	

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Johnsongrass, seedling Sorghum halepense		
Oats, wild Avena fatua		
Panicum, tall Panicum dichotomillorum	,	
Panicum, Texas Panicum texanum		
Pigweed, redroot Amaranthus retroflexus	}	
Pigweed, smooth Amaranthus hybridus	}	
Witchgrass Panicum capillare	{	
Sicklepod Cassia obtusitotia	3 to 4*	24 oz.
Signalgrass, broadleaf Brachiaria platyphylla	4"	1
Horseweed/Marestail Conyza canadensis	7 to 12*	1
Lambsquarters, common Chenopodium album		1
Spurge, annual Euphorbia spp.		
Rice, red Oryza sativa	4-	32 oz.
leaweed Sida spinosa	-	

WEED SPECIES	MAXIMUM PHEIGHT/LENGTH	RATE PER ACRE* (Fluid Ounces)
Sprangletop Leptochloa spp.	6*	32 oz.
Geranium, Carolina Geranium carolinianum	12*	
Goosegrass Eleusine indica		
Primrose, cutleaf evening Genothera laciniate		
Pusley, Florida Richardia scabra		
Sicklepod Cassia obtusifolia	5 to 12"	
Spanishneedles Bidens bipinnata		
Filaree Erodium spp.	12*	48 oz.
Sprangietop Leptochloa spp.		

*Use these rates to control barnyardgrass in Alabama, Arkansas, Mississippi, Missouri, Louisiana and Texas for preplant treatments.

- For those rates less than 32 fluid ounces per acre, this product at rates up to 32 fluid ounces per acre may be used where heavy weed densities exist.
- ** For control in no-till systems, use 16 fluid ounces per acre.

TANK MIXTURES

BUCCANEER® plus BANVEL plus Nonionic Surfactant

BUCCANEER plus 2,4-D plus nonionic Surfactant

DO NOT APPLY BANVEL OR 2.4-D TANK MIXTURES BY AIR IN CALIFORNIA.

These tank mixtures are recommended for use in fallow and reduced tillage areas only. Follow use directions as given in the "LOW-VOLUME BROADCAST APPLICATION" section.

This product plus Banvel or 2,4-D will control the annual grasses and broadleaf weeds fisted for this product alone at the indicated heights (except 8 fluid ounces per acre applications), plus the following broadleaf weeds. For those weeds previously listed at 8 fluid ounces of this product alone per acre, use 12 fluid ounces in these tank mixtures.

NOTE: Refer to the specific product labels for crop rotation restrictions and cautionary statements of all products used in tank mixtures. Some crop injury may occur if Banvel is applied within 45 days of planting. The addition of Banvel in a mixture with this product may provide short-term residual control of selected weed species.

Apply 12 to 16 fluid ounces of this product plus 0.25 pound a.i. of Banvet or 0.5 pound a.i. of 2.4-0, plus 0.5 to 1 percent nonionic surfactant by total spray volume per acre to control dense populations of the following annual broadleaf weeds when less than the height indicated:

Cocklebur (12")

Xanthium strumarium

Kochia* (6")

Kochia scoparia Lambsquarters (12")

Chenopodium album Lettuce, prickly (6")

Lactuca serriola

Morningglary (6") Іротова хрр.

Pigweed, redroot (12*) Amaranthus retroflexus

Pigweed, smooth (12") Amaranthus hybridus Thistle, Russian (12")

Salsola kali

Marestail/Horseweed (6")

Conyza canadensis

*Controlled with Banvel tank mixture only.

Apply 16 fluid ounces of this product plus 0.5 pound a.i. of 2,4-0. plus 0.5 to 1 percent nonionic surfactant by total spray volume per acre to control the following annual broadleaf weeds when less than 6 inches in height.

Ragweed, common Ambrosia artemisiifolia Smartweed, Pennsylvania Polygonum pensylvanicum

Ragweed, giant

Velvetleaf

Ambrosia trilida Abutilon theophrasti

HIGH-VOLUME BROADCAST APPLICATIONS

When applied as directed under the conditions described, this product will control the weeds listed below when water carrier volumes are 10 to 40 gallons per acre for ground applications.

Apply 1 to 1.5 quarts of this product per acre plus 0.5 to 1 percent nonionic surfactant by total spray volume. Use 1 quart per acre if weeds are less than 6 inches tall and 1.5 quarts per acre if weeds are over 6 inches tall. If weeds have been mowed, grazed or cut, allow adequate time for new growth to reach recommended stages prior to treatment. These rates will also provide control of weeds fisted in the "LOW-VOLUME BROADCAST APPLICATION" section.

WEED SPECIES

Balsamapple* Momordica charantia

Bassia, fivehook Bassia hyssopilolia

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Fiddleneck Amsinckia spp.

Fleabane, hairy Conyza bonariensis

Fleabane Erigeron spp.

Kochia Kochia scoparia

Lettuce, prickly Lactuca serriola Panicum Panicum spp.

Ragweed, common Ambrosia artemisiitolia

Ragweed, giant Ambrosia trifida

Smartweed, Pennsylvania Polygonum pensylvanicum

Sowthistle, annual Sonchus cleraceus

Sunflower Helianthus annuus

Thistle, Russian

Salsola kali Velvetleaf

Abulilan theophrasti

PERENNIAL WEEDS

Apply this product as follows to control or destroy most perennial

NOTE: If weeds have been moved or tilled, do not treat until plants have resumed active growth and have reached the recommended

Repeat treatments may be necessary to control weeds regenerating from underground parts or seed. Repeat treatments must be made prior to crop emergence.

The addition of 1 to 2 percent dry ammonium sulfate by weight or 8.5 to 17 pounds per 100 gallons of water may increase the performance

^{*}Apply with hand-held equipment only.

of this product on perennial weeds. The improvement in performance may be apparent where environmental stress is a concern. Refer to the "MIXING, ADDITIVES and APPLICATION INSTRUCTIONS" section of this label.

When applied as recommended under the conditions described, this product WILL CONTROL the following PERENNIAL WEEDS:

Altalfa

Medicago sativa

Alligatorweed*

Alternanthera philoxeroides

Anise (fennel)
Foeniculum vulgare

Artichoke, lerusalem Helianthus tuberosus

Bahiagrass

Paspalum notatum

Bentgrass Agrostis spp.

Bermudagrass
Cynodon dactylon

Bermudagrass, water (knotgrass)

Paspalum distichum

Bindweed, field Convolvulus arvensis

Bluegrass, Kentucky

Poa spp.

Blueweed, Texas Helianthus ciliaris

Brackentern
Pteridium aquilinum

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Festuca arundinacea Guineagrass Pancium maximum

Fescue, tall

Horsenettle Solanum carolinense

Horseradish Armoracia rusticana

ice plant

Mesembryanthemum crystallinum

Johnsongrass Sorghum halepense

Wkuyugrass Panningt

Pennisetum clandestinum Knapweed

Centaurea repens

Lantana Lantana camara

Lespedeza Lespedeza spp.

Milkweed Asclepias spp.

Muhly, wirestem Muhlenbergia Irondonsa

Mullein, common Verbascum thapsus

Napiergrass

Pennisetum purpureum

Bromegrass, smooth Bromus inermis

Bursage, woollyteat Franseria tomentosa

Canarygrass, reed Phalaris arundinacea

Cattail *Typha spp* Clover, red

Trifolium pratense Clover, white

Itilolium repens Cogongrass

Imperata cylindrica

Dallisgrass

Paspalum dilatatum

Dandelion

Taraxacum officinale

Dock, curly Rumex crispus

Dogbane, hemp

Apocynum cannabinum

Fescues Festuca spp.

Nightshade, silverleaf Solanum elaeagnifolium

Nutsedge: purple, yellow Cyperus rotundus Cyperus esculentus

Orchardgrass Dactylis glomerata

Pampasgrass Cortaderia spp.

Paragrass Brachiaria mutica

Phragmites *
Phragmites spp.
Poison hemlock

Conium maculatum Quackgrass Agropyron repens

Redvine* Brunnichia ovata

Reed, giant Arundo donax

Ryegrass, perennial Lolium perenne

Smartweed, swamp . Polygonum coccineum

Spurge, leafy* Euphorbia esula

Starthistle, yellow Centaurea solstitalis Sweet polato, wild*

Ipomoea pandurata

Irumpetcreeper* Campsis radicans

Thistle, Canada Cirsium arvense

Vaseygrass Paspalum urvillei

Thistle, artichoke Cynara cardunculus

Yelvetgrass Holcus spp.

Trmothy Phleum pratense

Wheatgrass, western Agropyron smithii

*zzergobsgraf Panicum repens

*Partial Control

This product is not registered in California for use on water bermuda-

See "DIRECTIONS FOR USE" and "MOUNG, ADDITIVES and APPLICA-TION INSTRUCTIONS" sections of this label for labeled uses and specific application instructions.

Attalta---Apply I quart of this product per acre plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. Make application after the last hay cutting in the fall. Allow alfalfa to regrow to a height of 8 to 8 inches or more prior to treatment. Applications should be followed with deep tillage at least 7 days after treatment, but before soil freeze-up.

Alligatorweed—Apply 4 quarts of this product per acre or apply a 1.5 percent solution with hand-held equipment to provide partial control. Apply when most of the plants are in bloom. Repeat applications will be required to maintain such control.

Anise (fennel) / Poison hemlock—Apply a 1 to 2 percent solution of this product as a spray-to-wet treatment. Optimum results are obtained when plants are treated at the bud to full-bloom stage of growth. Repeat applications may be needed in succeeding years to control plants arising from seeds.

Bentgrass—for suppression in grass seed production areas. For ground applications only, apply 1.5 quarts of this product plus 0.5 to I percent nonionic surfactant by total spray volume in 10 to 20 gallons of water per acre. Ensure entire crown area has resumed growth prior to a fall application. Bentgrass should be actively growing and have at least 3 inches of growth. Tillage prior to treatment should be avoided. Tillage 7 to 10 days after application is recommended for best results. Failure to use tiflage after treatment may result in unac-

Bermudagrass—For control, apply 5 quarts of this product per acre. for partial control, apply 3 quarts per acre. Treat when bermudagrass is actively growing and seedheads are present. Retreatment may be necessary to maintain control. Allow 7 or more days after application

Bermudagrass, water (knotgrass)—Apply 1.5 quarts of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 5 to 10 gallons of water per acre. Apply when water bermudagrass is actively growing and 12 to 18 inches in length. Allow 7 or more days before tilling, flushing or flooding the field.

Fall applications only—Apply 1 quart of this product plus 0.5 to 1 percent nomionic surfactant by total spray volume in 5 to 10 gallons of water per acre. Fallow fields should be tilled prior to application. Apply prior to frost on water bermudagrass that is actively growing and 12 to 18 inches in length. Allow 7 or more days before tillage.

Bindweed, field—For control, apply 4 to 5 quarts of this product per acre west of the Mississippi River and 3 to 4 quarts east of the Mississippi River. Apply when the weeds are actively growing and are at or beyond full bloom. Do not treat when weed is under drought stress as good soil moisture is necessary for active growth. For best results, apply in late summer or fall. Fall treatments must be applied before a killing frost. Allow 7 or more days after application before

Also for centrel, apply 2 quarts of this product plus 0.5 pound a.i. of Banvei in 10 to 20 gallons of water per acre. At these rates, apply using ground application only.

The following tank mixtures with 2.4-D may be applied using aerial application equipment (except in California) in fallow and reduced tillage systems only.

For suppression on irrigated agricultural land, apply 1 to 2 quarts of this product plus 1 pound a.i. of 2.4-0 in 10 to 20 gallons of water per acre with ground equipment only. Applications should be made following harvest or in fall fallow ground when the bindweed is actively growing and the majority of runners are 12 inches or more in length. The use of at least one irrigation will promote active bindweed growth.

For suppression, apply 16 fluid ounces of this product plus 0.5 pound a.i. of 2.4-0 plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre for ground applications and 3 to 5 gallons of water per acre for aerial applications. Applications should be delayed until maximum emergence has occurred and when vines are between 6 to 18 inches in length.

in California only, apply 1 to 5 quarts of this product per acre. Actual rate needed for suppression or control will vary within this range depending on local conditions.

For suppression on irrigated land where annual tiflage is performed, apply I quart of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. Apply to actively growing bindweed that has reached a length of 12 inches or greater. Allow maximum weed emergence and runner growth. Do not treat when weeds are under drought stress as good soil moisture is necessary for active growth. Allow 3 or more days after application before tillage.

Bluegrass. Kentucky / Bromegrass, smooth / Orchardgrass— Apply 2 quarts of this product in 10 to 40 gallons of water per acre when the grasses are actively growing and most plants have reached boot-to-early seedhead stage of development. For partial control in

pasture or hay crop renovation, apply 1 to 1.5 quarts of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. Apply to actively growing plants when most have reached 4 to 12 inches in height. Allow 7 or more days after application before tillage.

Orchardgrass (sods going to no-till corn)—Apply 1 to 1.5 quarts of this product per acre plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. Apply to orchardgrass that is a minimum of 12 inches tall for spring applications and 6 inches tall for tall applications. Allow at least 3 days following application before planting. A sequential application of atrazine will be necessary for optimum results.

Blueweed, Texas—Apply 4 to 5 quarts of this product per acre west of the Mississippi River and 3 to 4 quarts per acre east of the Mississippi River. Apply when weed is actively growing and is at or beyond full bloom. Do not treat when weed is under drought stress as good soil moisture is necessary for active growth. New leaf development indicates active growth. For best results, apply in late summer or fall. Fall treatments must be applied before a killing frost. Allow 7 or more days after application before tillage.

Brackenfern—Apply 3 to 4 quarts of this product per acre as a broadcast spray or as a 1 to 1.5 percent solution with hand-held equipment. Apply to fully expanded fronds which are at least 18 inches long.

Bursage, woollyleaf—For control, apply 2 quarts of this product plus 1 pint of Banvel per acre. For partial control, apply 1 quart of this product plus 1 pint of Banvel per acre. Add 0.5 to 1 percent nonionic surfactant by total spray volume and apply in 3 to 20 gallons of water per acre. Apply when plants are producing new active growth which has been initialed by moisture for at least 2 weeks and when plants are at or beyond flowering.

growing plants when most have reached the boot-to-head stage of growth. Allow I or more days after application before tillage.

Cogongrass—Apply 3 to 5 quarts of this product plus 0.5 to 1 percent nonionic surfactant in 10 to 40 gallons of water per acre. Apply when Cogongrass is at least 18 inches tall and actively growing in late summer or tall. Allow 7 or more days after application before tillage or moving. Due to uneven stages of growth and the dense nature of vegetation preventing good spray coverage, repeat treatments may be necessary to maintain control.

Oandelion / Dock, certy—Apply 3 to 5 quarts of this product per acre when plants are actively growing and most have reached the early bud stage of growth. Allow 1 or more days after application before tillage.

Also to: control, apply 16 fluid ounces of this product plus 0.5 pound a.i. 2,4-0 plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre.

Dogbane, hemp—Apply 4 quarts of this product per acre. Apply when actively growing and when most weeds have reached the late when stage of growth. Following crop harvest or mawing, but to flower stage of growth. Following crop harvest or mawing allow weeds to regrow to a mature stage prior to treatment. For best allow weeds to regrow to a mature stage prior to treatment applicability apply in late summer or fall. Allow 1 or more days after application before titlace.

for suppression, apply 16 fluid ounces of this product plus 0.5 pound a.i. of 2.4-0 plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre for ground applications and 3 to 5 gallons of water per acre for aerial applications. Oalay applications until maximum emergence of dogbane has occurred.

Fescue, tall—Apply 3 quarts of this product in 10 to 40 gallons of water per acre to actively growing plants when most have reached boot-to-early seedhead stage of development.

Fall applications only—Apply 1 quart of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. Apply to fescue in the fall when actively growing and plants have 5 to 12 inches of new growth. Allow 7 or more days after application before tillage. A sequential application of 1 pint per acre of this product plus nonionic surfactant will improve long-term control and control seedlings germinating after fall treatments or the following spring.

Guineagrass—Apply 3 quarts of this product per acre or use a 1 percent solution with hand-held equipment. Apply to actively growing guineagrass when most has reached at least the 7-leaf stage of growth. Ensure thorough coverage when using hand-held equipment. Allow 7 or more days after application before tillage.

Iohnsongrass / Ryegrass, perennial—Apply 1 to 3 quarts of this product per acre. In annual cropping systems apply 1 to 2 quarts of this product per acre. Apply 1 quart of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. Use 2 quarts of this product when applying 10 to 40 gallons of water per acre. In noncrop, or areas where annual tillage (no-till) is not performed, apply 2 to 3 quarts of this product in 10 to 40 gallons of water per acre. For best results, apply to actively growing plants when most have reached the boot-to-head stage of growth or in the fall prior to frost. Allow 7 or more days after application before tillage. On not tank-mix with residual herbicides when using the 1 quart per acre rate.

For burndown of Johnsongrass, apply 1 pint per acre plus 0.5 to 1 percent nonionic surfactant in 3 to 10 gallions of water per acre before the plants reach a height of 12 inches. For this use, allow at least 3 days after treatment before tillage.

Spot treatment (partial control or suppression)—Apply a 1 percent solution of this product plus 0.5 to 1 percent nonionic surfactant by total soray volume when Johnsongrass is 12 to 18 inches in height. Coverage should be uniform and complete.

Rikuyugrass—Apply 2 to 3 quarts of this product per acre. Spray when most kikuyugrass is at least 8 inches in height (3- or 4-leaf stage of growth) and actively growing. Allow 3 or more days after application before tillage.

Knapweed / Horseradish—Apply 4 quarts of this product per acte. Apply when actively growing and when most weeds have reached the late bud to flower stage of growth. Following crop harvest or mowing, allow weeds to regrow to a mature stage prior to treatment. For best results, apply in late summer or fall. Allow 7 or more days after application before tillage.

Lantana—Apply this product as a 1 to 1.25 percent solution using hand-held equipment only. Apply to actively growing lantana at or beyond the bloom stage of growth. Use the higher application rate for plants that have reached the woody stage of growth. Allow 7 or more days after application before tillage.

Milkweed, common—Apply 3 quarts of this product per acre. Apply when actively growing and most of the milkweed has reached the late bud to flower stage of growth. Following small grain harvest or mowing, allow milkweed to regrow to a mature stage prior to treatment. Allow 7 or more days after application before tillage.

Muhly, wirestem—Apply 1 to 2 quarts of this product per acre. Use 1 quart of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. Use 2 quarts of this product when applying 10 to 40 gallons of water per acre or in pasture, sod, or noncrop areas. Spray when the wirestem muhly is 8 inches or more in height and actively growing. On not till between harvest and fall applications or in the fall or spring prior to spring applications. Allow 3 or more days after application before tillage. This product will not provide residual control of wirestem muhly from seeds which germinate after application of this product. Do not tank mix with residual herbicides when using the 1 quart per acre rate.

Hightshade, silverteat—For control, apply 2 quarts of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gailons of water per acre. Applications should be made when at least 60 percent of the plants have berries. Fall treatments must be applied before a killing frost. Allow 7 or more days after application before tillage. Do not treat when weed is under drought stress as good soil moisture is necessary for active growth.

Nutsedge; purple, yellow—Apply 3 quarts of this product per acre as a broadcast spray, or apply a 1 to 2 percent solution from handheld equipment to control existing nutsedge plants and immature nutlets attached to treated plants. Treat when plants are in flower or when new nutlets can be found at rhizome tips. Nutlets which have not germinated will not be controlled and may germinate following treatment. Repeat treatments will be required for long-term control of ungerminated tubers.

Sequential applications of 1 to 2 quarts of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre will provide control. Make applications when a majority of the plants are in the 3- to 5-leaf stage (less than 6 inches tail). Repeat this application, as necessary, when newly emerging plants reach the 3- to 5-leaf stage. Subsequent applications will be necessary for long-term control.

For suppression to partial control of existing plants, apply 1 pint to 2 quarts of this product per acre, plus 0.5 to 1 percent nonionic surfactant in 3 to 40 gallons of water per acre. Treat when plants have 3 to 5 leaves and most are less than 6 inches tall. Repeat treatments will be required to control subsequent emerging plants or regrowth of existing plants. Wait 7 days after treatment before tillage or mowing.

Pampasgrass / Ice plant—Apply this product as a 1.5 to 2 percent solution using hand-held equipment. Apply to plants that are actively growing. Pampasgrass should be at or beyond the boot stage of growth. Thorough coverage is necessary for best control.

Phragmites—for partial control of phragmites in Florida and the counties of other states bordering the Gulf of Mexico, apply 5 quarts per acre as a broadcast spray or apply a 2 percent solution from hand-held equipment. In other areas of the U.S., apply 3 quarts per acre as a broadcast spray or apply a 1 percent solution from handheld equipment for partial control. For best results, treat during late summer or fall months or when plants are actively growing and in full bloom. Treatment before or after this stage may lead to reduced control. Due to the dense nature of the vegetation, which may prevent good spray coverage or uneven stages of growth, repeat treatments may be necessary to maintain control. Visual control symptoms will he sinw to develop.

Quackgrass—In Annual Cropping Systems, or in Pastures and Sods Followed by Deep Tillage: Apply 1 to 2 quarts of this product per acre. For the 1 quart rate, apply 0.5 to 1 percent nonionic surfaclant by total spray volume in 3 to 10 gallons of water per acre. For the 2 quart rate, apply in 10 to 40 gallons of water per acre. Do not tank mix with residual herbicides when using the 1 quart rate. Spray when quackgrass is 6 to 8 inches in height and actively growing. Do not till between harvest and fall applications or in fall or spring prior to spring application. Allow 3 or more days after application before Lillage. In pastures or sods, for best results use a moldboard plow.

Quackgrass-Pasture or Sod or Other Noncrop Areas Where Deep Tillage is Not Planned Following Application: Apply 2 to 3 quarts in 10 to 40 gallons of water per acre. Spray when the quackgrass is greater than 8 inches tall and actively growing. Do not till between harvest and fall application or in fall or spring prior to spring application. Allow 3 or more days after application before tillage.

Redvine-For suppression, apply 24 fluid ounces of this product per acre at each of two applications. I to 14 days apart or a single application of 2 quarts per acre. Apply recommended rates in 5 to 10 gallons of water per acre plus 0.5 to 1 percent nonionic surfactant by total volume. Apply in late September or early October to actively mewing plants, which are at least 18 inches tall and have been grow-

least I week before a killing frost. est unage operation, make applications at

Reed, giant—For control of giant reed, apply a 2 percent solution of this product when plants are actively growing. Best results are obtained when applications are made in late summer to fall.

Smarrweed, swamp—Apply 3 to 5 quarts of this product per acre when plants are actively growing and most have reached the early bud stage of growth. Allow 7 or more days after application before

Also for control, apply 16 fluid ounces of this product plus 0.5 pound active ingredient of 2,4-D plus 0.5 to 1 percent nonionic surfactant by total volume in 3 to 10 gallons of water per acre in the late summer or iall. Apply when plants are actively growing and most have reached the early bud stage of growth. Allow 7 or more days after application

Spurge, leady—For suppression, apply 16 fluid ounces of this product plus 0.5 pound active ingredient 2.4-0 plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre in the late summer or fall. Apply when plants are actively growing. If mowing has occurred prior to treatment, apply when most of the plants are 12 inches tall. Allow 7 or more days after application

Starthistle, yellow—Best results are obtained when applications are made during periods of active growth, including the rosette, botting and early flower stages. For spray-to-wet applications, apply this product as a 2 percent solution. For broadcast applications, apply 2 quarts per acre in 10 to 40 gallons per acre of water carrier.

Sweet Potato, wild / Thistle, artichoke—Apply this product as a 2 percent solution using hand-held equipment. Apply to actively growing weeds that are at or beyond the bloom stage of growth. Repeat applications may be required. Allow the plant to reach the recommended stage of growth before retreatment. Allow 7 or more days before

Thistle, Canada—Apply 2 to 3 quarts of this product per acre. Apply to actively growing thisties when most are at or beyond the bud stage of growth. After harvest, mowing or billage in the late summer or fall, allow at least 4 weeks for initiation of active growth and rosette development prior to the application of this product. Fall treatments must be applied before a killing frost. Allow 3 or more days after application before tillage.

For suppression of Canada thistle, apply 1 quart per acre of this product, or 1 pint of this product plus 0.5 pound a.i. 2.4-0 per acre. plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre in the late summer or fall after harvest, mowing or tillage. Allow rosette regrowth to a minimum of $\boldsymbol{\delta}$ inches in diameter before treating. Applications can be made as long as leaves are still green and plants are actively growing at the time of application. Allow 3 or more days after application before tillage.

Torpedograss—Apply 4 to 5 quarts of this product per acre to provide partial control of torpedograss. Apply to actively growing torpedograss when most plants are at or beyond the seedhead stage of growth. Repeat applications will be required to maintain control. Fall treatments must be applied before frost. Allow 7 or more days after application before tillage.

Trumpetcreeper-For control, apply 2 quarts of this product per acre in 5 to 10 gallons of water per acre. Apply to actively growing plants in late September or October, which are at least 18 inches tall and have been growing 45 to 60 days since the last tillage operation. Make applications at least 1 week before a killing frost.

Other perennials listed on this label-Apply 3 to 5 quarts of this product per acre. Apply when actively growing and most have reached early head or early bud stage of growth. Allow 7 or more days after application before tillaga.

When applied as recommended under the conditions described, this product CONTROLS or PARTIALLY CONTROLS the following woody

Alder

Alnus spp.

Ash*

Fraxinus spp.

Aspen, quaking

Populus tremulaides Bearmat (Bearclover)

Chamaebatia (oliolosa

Beech

Fagus granditolia

Birch

Betula spp.

Blackberry Rubus spp.

Blackgum

Myssa spp. Bracken

Peridium sop. Broom:

French

Cylisus monspessulanus

Scotch

Cytisus scoparius

Buckwheat, California* Eriogonum fasciculatum Cascara*

Rhamnus purshiana

Catsclaw*

Acacia greggi Ceanothus*

Ceanothus spp.

Chamise

Adenostoma fasciculatum

Cherry: Bitter

Prunus emarginata

Black

Prunus serotina

Pin

Prunus pensylvanica

Coyete brush

Baccharis consanguinea

Creeper, Virginia*

Parthenocissus quinquefolia

Dewberry Rubus trivialis

Dogwood* Cornus spp.

Elderberry Sambucus spp.

Elm* Maple: Ulmus spp. Red** Eucatyptus Acer rubrum Eucatyptus spp. Sugar Corse Acer saccharum Ulex europaeus Vine* Hasardia* Acer circinatum Haplopappus squamosus Monkey Flower* Hawthorn Mimulus guttatus Crataegus spp. Oak: Hazel Black* Corylus spp. Quercus velutina Hickory* Northern Pin Carya spp. Quercus palustris Holly, Florida/ Post Brazilian Peppertree* Quercus stellata Schinus terebirithilolius Red Honeysuckle Quercus rubra Lonicera spp. Southern Red Kombeam, American* Quercus falcata Carpinus caroliniana White* Kudzu Quercus alba Pueraria lobata Persimmon* Locust, black* Diospyrós spp. Robinia pseudoacacia Pine Madrone Pinus spp. Arbutus menziesii Paison Ivy Manzanita Rhus radicans Arctostaphylos spp. Poison Oak Linodendron tulipitera Rhus toxicodendron Raspberry Paison* Rubus spp. Rhus vernix Redbud, eastern Smooth* Cercis canadensis Rhus glabra Rose, multiflora Winged* Rosa multiflora Rhus copallina Russian-olive Sweetgum Elaeagnus angustilolia Liquidambar styraciflua Sage; black, white Swardfern* Satvia spp. Polystichum munitum Sagebrush, California Tallowiree, Chinese Artemisia californica Sapium sebilerum Saimonberry Tan Qak Rubus spectabilis Lithocarpus densillorus Salt cedar Thimbleberry Таталіх зор Rubus pervillorus Sassafras Tobacco, tree * Sassalias aibidum Nicotiana glauca Sourwood Trumpetcreeper Oxydendrum arboreum Campsis radicans Waxmyrrie, southern* Myrica cerifera Willow Salix spp.

*Partial control

^{*}See below for control or partial control instructions.

KOTE: If brush has been mowed or tilled or trees have been cut, do not treat until regrowth has reached the recommended stages of

Apply this product when plants are actively growing and, unless otherwise directed, after full leaf expansion. Use the higher rate for larger plants and/or dense areas of growth. On vines, use the higher rate for plants that have reached the woody stage of growth. Best results are obtained when application is made in late summer or fall after truit formation.

In arid areas, best results are obtained when application is made in the spring to early summer when brush species are at high moisture content and are flowering.

Ensure thorough coverage when using hand-held equipment, Symptoms may not appear prior to frost or senescence with fall treatments.

Allow 7 or more days after application before tillage, mowing or removal. Repeat treatments may be necessary to control plants regenerating from underground parts or seed. Some autumn colors on undesirable deciduous species are acceptable provided no major leaf drop has occurred. Reduced performance may result if fall treatments are made following a frost.

See "DIRECTIONS FOR USE" and "MIXING, ADDITIVES and APPLICA-TION INSTRUCTIONS" sections of this label for labeled uses and specific application instructions.

Apply this product as follows to control or partially control the following woody brush and trees.

Aider / Dewberry / Koneysuckle / Post Oak / Raspberry-for control, apply 3 to 4 quarts per acre of this product as a broadcast spray or as a 1 to 1.5 percent solution with hand-held equipment.

Aspen, quaking / Cherry: bitter, black, pin / Hawthorn / Oak, southern red / Sweetgum / Trumpetereeper-For control, apply 2 to 3 quarts of this product per acre as a broadcast spray or as a 1 to 1.5 percent solution with hand-held equipment.

Birch / Elderberry / Hazel / Salmonberry / Thimbleberry—For control, apply 2 quarts per acre of this product as a broadcast spray or as a 1 percent solution with hand-held equipment.

Blackberry—For control, apply 3 to 4 quarts per acre of this product as a broadcast spray, or 1 to 1.5 percent solution with hand-held equipment. Make application after plants have reached full leaf maturity. Best results are obtained when applications are made in late summer or fall. After berries have set or dropped in late fall, blackberry can be controlled by applying a 3/4 percent solution of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume with hand-held equipment. For control of blackberries after leaf drop and until killing frost or as long as stems are green, apply 3 to 4 quarts of this product in 10 to 40 gallons of water per acre.

Broom: French, Scotch—For control, apply a 1.5 to 2 percent solu-

Buckwheat, California / Hasardia / Monkey Flower / Tobacco, tree—For partial control of these species, apply a 1 to 2 percent solution of this product as a toliar spray with hand-held equipment. Therough coverage of foliage is necessary for best results.

Catsclaw—For partial control, apply as a 1 to 1.5 percent solution

Coyote Brush—For control, apply a 1.5 to 2 percent solution with hand-held equipment when at least 50 percent of the new leaves are fully developed.

Eucalyptus—For control of eucalyptus resprouts, apply a 2 percent solution of this product with hand-held equipment when resprouts are 5 to 12 feet tall. Ensure complete coverage. Apply when plants are growing actively. Avoid application to drought-stressed plants.

Kudzu—For control, apply 4 quarts of this product per acre as a broadcast spray or as a 2 percent solution with hand-held equipment. Repeat applications will be required to maintain control.

Madrone resprouts—For suppression or partial control, apply a 2 percent solution of this product to resprouts less than 3 to 6 feet tall. Best results are obtained with spring/early summer treatments.

Maple, red.—For control, apply as a 1 to 1.5 percent solution with hand-held equipment when at least 50 percent of the new leaves are fully developed. For partial control, apply 2 to 4 quarts of this product per acre as a broadcast spray.

Maple, sugar / Oak, northern pin / Oak, red—For control, apply as a 1 to 1.5 percent solution with hand-held equipment when at least 50 percent of the new leaves are fully developed.

Poison Ivy / Poison Oak—For control, apply 4 to 5 quarts of this product per acre as a broadcast spray or as a 2 percent solution with hand-held equipment. Repeat applications may be required to maintain control. Fall treatments must be applied before leaves lose green

Rose, multiflora—For control, apply 2 quarts of this product per acre as a broadcast spray or as a 1 gercent solution with hand-held equipment. Treatments should be made prior to leaf deterioration by leaf-feeding insects.

Sage, black / Sagebrush, California / Chamise / Tallowfree, Chinase—For control of these species, apply a 1 percent solution of this product as a foliar spray with hand-held equipment. Thorough coverage of foliage is necessary for best results.

Tan mak resprouts—For suppression or partial control, apply a 2 percent solution of this product to resprouts less than 3 to 6 feet tall. Best results are obtained with fall applications.

Willow—For control, apply 3 quarts of this product per acre as a broadcast spray or as a 1 percent solution with hand-held equipment.

Other Woody Brush and Trees listed on this label—For partial control, apply 2 to 5 quarts of this product per acre as a broadcast spray or as a 1 to 2 percent solution with hand-held equipment.

NONCROP USES

See "GENERAL INFORMATION" and "MIXING, ADDITIVES and APPLI-CATION INSTRUCTIONS" sections of this label for essential product performance information and the following "NONCROP" sections for specific recommended uses.

EXTREME CARE MUST BE EXERCISED TO AVOID CONTACT OF SPRAY WITH FOLIAGE, GREEN STEMS, EXPOSED MON-WOODY ROOTS OR FRUIT OF CROPS, DESIRABLE TURFGRASSES, TREES, SHRUBS OR OTHER DESIRABLE VEGETATION SINCE SEVERE DAMAGE OR DESTRUCTION MAY RESULT.

Repeat treatments may be necessary to control weeds regenerating from underground parts or seeds.

Where repeat applications are necessary, do not exceed 10.6 quarts of this product per acre per year.

This product does not provide residual weed control. For subsequent weed control, follow a label-approved herbicide program.

Read and carefully observe the cautionary statements and all other information appearing on the labels of all herbicides used.

INDUSTRIAL, RECREATIONAL AND PUBLIC AREAS

When applied as directed for "NONCROP USES," under conditions described, this product controls annual and perennial weeds listed on this label growing in areas such as airports, ditch banks, dry ditches, dry canals, fencerows, golf courses, highways, industrial plant sites, lumber yards, parking areas, parks, petroleum tank farms and pumping installations, pipelines, power and telephone rights-of-way, raifroads, roadsides, schools, storage areas, utility substations, other public areas and similar industrial or noncrep areas.

For specific rates of application and instructions for control of various annual and perennial weeds and woody brush and trees, see the "WEEDS CONTROLLED" section of this label.

This product may be applied with recirculating sprayers, shielded applicators, or wiper applicators in any noncrop site specified on this label. See the Selective Equipment part of "APPLICATION EQUIPMENT and TECHNIQUES" section of this label for information on proper use and calibration of this equipment.

TANK MIXTURES FOR INDUSTRIAL SITES AND FORESTRY SITE PREPARATIONS

BUCCANEER® plus OUST™

Use on industrial sites including airports, industrial plants, lumberyards, petroleum tank farms, pumping stations, railroads, roadsides, storage areas or other similar sites where bare ground is desired.

This tank mixture may also be used as a site preparation treatment for sites to be planted to jack pine, loblolly pine, red pine, slash pine and Virginia pine. When applied as directed for "NONCROP USES" under the conditions described, this product plus Oust provides control of annual weeds listed in the "WEEDS CONTROLLED" section of the label for this product and Oust, and control or partial control of the perennial weeds listed below.

Apply 1 to 2 quarts of this product with 2 to 4 ounces of Oust in 10 to 40 gallons of spray solution per acre as a broadcast spray to actively growing weeds.

This mixture may be applied by aerial equipment in site prep operations. When applied by air, use the recommended rates in 5 to 15 gallons of spray solution per acre.

This product plus Oust tank mixtures may not be applied by air in

For control of annual weeds, use the lower rates of these products. For control of the listed perennial weeds, use the higher rates of both products. For partial control, use the lower rates.

Bahiagrass

Paspalum notatum

Bermudagrass*

Cynodon dactylon Broomsedge

Andropogon virginicus Dock, curty

Rumex crispus

Doglennel Eupatorium capilliforium

Fescue, tall Festuca arundinacea

*Suppression at the higher rates only.

iohnsongrass** Sorghum halepense

Poorioe** Diodia teres

Quackgrass Agropyron repens

Trumpetcreeper* Campsis radicans

Vaseygrass Paspalum urvillei

Vervain, blue Verbena hastata

**Control at the lower rates.

Read and carefully observe the cautionary statements and all other information appearing on the labels of all herbicides used

TANK MIXTURES NONCROP SITES

When applied as a tank mixture, this product provides control of the emerged annual weeds and partial control of the emerged perennial weeds listed in this label. When applied as a tank mixture, the following residual harbicides will provide preemergence control of the weeds fisted in the individual product labels.

		54
	BUCCANEER® plus DIURON	
•	BUCCANEER plus KROVAR™!	
	BUCCANEER plus KROVAR II	=
	BUCCANEER plus RONSTAR® 50WP	
	BUCCANEER plus SIMAZINE, PRINCEP CALIBER™ 90	•
	BUCCANEER plus SIMAZINE 4L	
-	BUCCANEER plus SIMAZINE 80W	
-	BUCCANEER plus SURFLANIN 75W	
	BUCCANEER plus SURFLAN AS	

When tank mixing with residual herbicides, add an agriculturally approved nonionic surfactant at 0.5 to 1 percent by volume of spray solution. See the "MIXING, ADDITIVES and APPLICATION INSTRUC-TIONS" section of this label before preparing these lank mixtures.

Read and carefully observe the label claims, cautionary statements, recommended use rates and all other information on the labels of all products used in these tank mixtures. Use according to the most restrictive label directions for each product in the mixture.

CONTROL OF EMERGED WEEDS

NOTE: For backpack sprayer and handgun applications, see the "HAND-HELD AND HIGH VOLUME EQUIPMENT" section for recom-

Annual Weeds—Apply 1 quart per acre of this product in these tank mixtures when weeds are less than 6 inches tall and 1.5 quarts per acre when weeds are more than 6 inches tall.

Perennial Weeds--For partial control of perennial weeds using these tank mixtures, apply 2 to 5 quarts per acre of this product. Follow the recommendations in the "WEEDS CONTROLLED" section of this label for stage of growth and rate of application for specific perennial weeds.

PREEMERGENCE WEED CONTROL

For preemergence weed control, refer to the individual product labels for specific noncrop sites, rates, carrier volumes and precautionary

Mix only the quantity of spray solution which can be used during the same day. Do not allow these tank mixtures to stand overnight as this may result in reduced weed control.

FARMSTEAD WEED CONTROL

When applied as directed for "NONCROP USES", under conditions described, this product controls undesirable vegetation listed on this label around farmstead building foundations, along and in fences. shelterbelts and for general nonselective farmslead weed control.

For specific rates of application and instructions for control of various annual and perennial weeds, see the "WEEDS CONTROLLED" section

FARM DITCHES

This product will suppress perennial grasses along farm ditches. Apply this product at a rate of 6 to 8 fluid ounces per acre. Use 8 fluid ounces per acre when treating tall (coarse) fescue, fine fescue, orchardgrass or quackgrass covers. For best suppression of these species, add ammonium sulfate at a rate of 1.7 pounds per 10 gallons of spray solution. Use 6 fluid ounces per acre without ammonium sulfate when treating Kentucky bivegrass.

Apply treatments in 10 to 20 gallons of spray solution per acre to actively growing perennial grass covers. For best spray distribution and coverage, use flat fan nozzles.

Add a nonionic surfactant at a rate of 0.5 percent of the spray solution

Where broadleaf weed control or suppression is desired, tank mix this product with an appropriate, labeled broadleaf weed herbicide.

CONSERVATION RESERVE PROGRAM (CRP ACRES)

This product can be used to control undesirable vegetation when rotating out of CRP acres or to suppress competitive growth and seed production of undesirable vegetation in CRP acres.

For specific rates of application for various annual and perennial weeds, see the "WEEDS CONTROLLED" section of this label.

CRP applications may be made with wiper applicators or conventional spray equipment.

For selective applications with broadcast spray equipment, apply 12 to 16 ounces per acre of this product in early spring before desirable CRP grasses, such as crested and tall wheatgrass, break dormancy and initiate green growth. Late fall applications can be made after desirable perennial grasses have reached dormancy. Some stunting of CRP perennial grasses will occur if applications are made when plants are not dormant.

HABITAT MANAGEMENT

This product is recommended for the restoration and/or maintenance of native habitats and in wildlife management areas. Apply as recommended in the "NOMCROP USES" section of this label.

Habitat Restoration and Maintenance—When applied as directed, exotic and other undesirable vegetation may be controlled in habitat management areas. Applications can be made to allow recovery of native plant species, prior to planting desirable native species, and for similar broadspectrum vegetation control requirements in habitat

management areas. Spot treatments can be made to selectively remove unwanted plants for habital maintenance and enhancement. For spot treatments, care should be exercised to keep spray off of desirable plants.

Wildlife Food Plots—This product may be used as a site preparation treatment prior to planting wildlife food plots. Any wildlife food species may be planted after applying this product, or native species may be allowed to repopulate the area. If tillage is needed to prepare a seedbed, wait 7 days after applying this product before tilling.

ORNAMENTALS, TREE NURSERIES AND CHRISTMAS TREES

THIS PRODUCT IS NOT RECOMMENDED FOR USE AS AN OVER-THE-TOP BROADCAST SPRAY IN ORNAMENTALS AND CHRISTMAS TREES.

NOTE: Desirable plants may be protected from the spray solution by using shields or coverings made of cardboard or other impermeable material.

When applied as instructed for the conditions described for "NON-CROP USES," this product controls undesirable vegetation listed on this label prior to planting, within and around greenhouses and shadehouses, and as a postdirected spray around established ornamentals and Christmas trees.

For specific rates of application and instructions for control of various annual and perennial weeds, see the "WEEDS CONTROLLED" section of this label.

Where repeat applications are necessary, do not exceed 10.6 quants of this product per acre per year.

Site Preparation—Following preplent applications of this product, any ornamental, nursery species or Christmas tree species may be planted. Precautions should be taken to protect nontarget plants during site preparation applications.

Greenhouse / Shadehouse Use—This product may be used to control weeds listed on this label which are growing in greenhouses. Desirable vegetation must not be present during application and air circulation tans must be turned off.

Postdirected Spray—Use as a postdirected spray around established woody ornamental species, nursery species or Christmas trees such as those listed below. Care must be exercised to avoid contact of spray, drift or mist with foliage of or green bank of established ornamental species.

Arborvitae Thuja spp.

Azalea Rhododendron spp.

Baxwood Buxus spp. Crabapple

Maius spp. Eupnymus

Euonymus spp.

Fir Abies spp. Pseudatsuga spp.

lojoba Simmondsia chinensis

Hollies Hex spp. Lilac Syringa spp.

Magnolia Magnolia spp.

Maple Acet spp.

Oak Quercus spp.

Privet

Ligustrum spp.

Pine Pinus spp.

Spruce Picea spp.

Yew Taxus spp.

SILVICULTURAL SITES and RIGHTS-OF-WAY

NOTE: NOT RECOMMENDED FOR USE AS AN OVER-THE-TOP BROAD-CAST SPRAY IN SILVICULTURAL NURSERIES.

When applied as directed for "NONCROP USES" under conditions described, this product controls undesirable vegetation fisted on this label. This product also suppresses or controls undesirable vegetation fisted on this label when applied at recommended rates for release of established configerous species listed on this label.

For specific rates of application and instructions for control of various brush, annual and perennial weeds, see the "WEEDS CONTROLLED" section of this label. For specific rates of application for release of listed conferous species, see the "CONFER RELEASE" part of this section of the label.

Where repeat applications are necessary, do not exceed 10.6 quarts of this product per acre per year.

Aerial Application—This product may be applied using aerial spray equipment for silvicultural site preparation, conifer release and rights-of-way treatments. See the "APPLICATION EQUIPMENT and TECHNIQUES" part of the "MIXING, ADDITIVES and APPLICATION INSTRUCTIONS" section of this label for information on how to apply this product by air.

DD NOT APPLY THIS PRODUCT BY AIR TO RIGHTS-OF-WAY SITES IN THE STATE OF CALIFORNIA.

To reduce the aerial application drift hazard to aquatic sites*, to nontarget sites or any site containing desirable vegetation, always maintain appropriate buffer zones. A buffer zone of the following minimum distances should be maintained:

 Helicopters using a MicrofoilTM boom, a Thru-ValveTM boom (TYB-45), or equivalent drift control systems, should maintain at least a 50-foot buffer zone.

- . When using other aerial equipment:
- 1. Maintain at least a 75-foot buffer zone for applications using 2 quarts or less per acre of this product.
- 2. Maintain at least a 125-foot buffer zone for applications using more than 2 quarts per acre of this product.
- 3. Maintain at least a 400-foot buffer zone for applications on rights-of-way when applied from 75 feet or more above ground evel

These distances should be increased if conditions favoring drift exist.

*Aquatic sites include all lakes, gonds and streams used for significant domestic purposes or angling.

SITE PREPARATION

Following preplant applications of this product, any silvicultural species may be planted.

POSTDIRECTED SPRAY

In established silvicultural sites, use as a soray on the foliage of undesirable vegetation. Care must be exercised to avoid contact of spray, drift or mist with foliage or green bank of desirable species.

CONIFER RELEASE

For release, apply only where conifers have been established for more than one year. Vegetation should not be disturbed prior to treatment or until visual symptoms appear after treatment. Symptoms of treatment are slow to appear, especially in woody species treated in late fall. Injury may occur to conifers treated for release, especially where spray patterns overlap or the higher rates are applied or when applications are made during periods of active conifer growth. Do not use additional surfactant with conifer release applications.

Applications must be made after formation of final conifer resting buds in the fall or prior to initial bud swelling in spring. Some autumn colors on undestrable deciduous species are acceptable provided no

major leaf drop has occurred. Use the following rates for conifer release to control or partially control the weeds listed in the "WEEDS CONTROLLED" section of this label.

For release of the following coniter species:

Douglas fir

Pines*

Pseudotsuga menziesii

Pinus sop

Some

Abies soo.

Picea spp.

Hemlock

*Includes all species except eastern white pine, loblofly pine or slash

Apply 1.5 to 2 quarts of this product per acre except in Washington and Oregon, west of the crest of the Cascade Mountains. For spring treatments west of the crest of the Cascade Mountains, apply 1 quart of this product per acre before coniter bud swell for control of annual weeds. For fall treatments in Washington and Oregon, west of the crest of the Cascade Mountains, apply 1 to 1.5 quarts of this product per acre before any major leaf drop of deciduous species.

For release of western hemlock, apply 1 quart of this product per

For release of the following conifer species:

Loblolly pine Pinus taeda Slash pine Pinus elliattii

Eastern white pine Pinus strobus

Late Season Application—Apply 1.5 to 2 quarts of this product in a minimum of 5 gallons of spray solution per acre during early autumn. Applications made prior to September 1 or when conditions are conducive to rapid growth of conifers will create the potential for increased injury in the form of tip and/or needle burn. Injury may

decrease with later applications. Some autumn colors are acceptable at time of application. Apply prior to frost or leaf drop of undesirable plants. Applications made according to tabel directions will release lobiolly pine, eastern white pine and slash pine by reducing competition from the following species:

Ash

Fraxinus spp.

Cherry: Black

Prunus serotina

Prunus pensylvanica

Elm Ulmus spp. Hawthorn

Crataegus spp. Locust, black Robina pseudoacacia

Maple, red Acer rubra Dak:

Pak: Black Overcus velutina

Post Overcus stellata

Southern Red Ouercus lalcata White Quercus alba

Persimmon Diaspytos spp. Poptar, yellow

Liriodendron tutipfera Sassafras

Sassatras albidum

Sourwood
Oxydendrum arboreum

Sumac: Poison Rhus vemix Smooth Rhus glabra

Winged
Rhus copallina
Sweetgum

- Liquidamber styraciflua -

Apply only to those sites where woody brush and trees listed in this label constitute the majority of the undesirable species.

■ BUCCANEER® plus oust tank mixtures ■ For Conifer release from Herbacedus Weeds

To release toblotly pines from herbaceous weeds, tank mixtures of this product with Oust will provide control of annual weeds listed in the "WEEDS CONTROLLED" section of this and the Oust label, and partial control of the perennial weeds listed below.

Apply 16 to 24 fluid ounces of this product with 2 to 4 ounces of Oust in 10 to 30 gallons of spray solution per acre. Make application to actively growing weeds as a broadcast spray over the top of the young loboily pines.

This product plus Oust tank mixtures may not be applied by air in California.

This tank mixture may be applied using aerial equipment. When applying by air, use the recommended rate in 5 to 15 gallons of spray solution per acre.

For control of annual weeds below 12 inches in height (or runner length on annual vines), use the lower rates of both products. Use the higher rates of both products when annual weeds are in more advanced stages of growth and approaching flower or seed formation.

Use the higher rates of both products for partial control of the following perennial weeds, tise the lower rates for suppression of growth.

Bahiagrass Paspalum notatum

Broomsedge Andropogon virginicus

Dock, curly Rumex crispus

Doglennel Eupatorium capilliforium Fescue, tall

Festuca arundinacea

Johnsongrass* Sorghum halepense

Poorjoe*
Diodia teres

Trumpetereeper**
Campsis radicans
Vaseygrass
Paspalum urvillei

Vervain, blue Verbena hastata *Control at the higher rates.

**Suppression at the higher rates only.

Pine damage may occur or can be accentuated if treatment takes place when young trees are under stress from drought, flood water, insects or disease.

Read and observe the cautionary statements and all other information appearing on the labels of all herbicides used.

NOTE TO USER

This product must not be used in areas where adverse impact on federally designated endangered/threatened plant or aquatic species

Prior to making applications, the user of this product must determine that no such species are located in or immediately adjacent to the area to be treated.

CUT STUMP TREATMENTS

Woody vegetation may be controlled by treating freshly cut stumps of trees and resprouts with this product. Apply this product using suitable equipment to ensure coverage of the entire cambium. Cut vegetation close to the soil surface. Apply a 50 to 100 percent solution of this product to the freshly-cut surface immediately after cutting. Delays in application may result in reduced performance. For best results, applications should be made during periods of active growth and full leaf expansion.

When used according to directions for cut stump application, this product will CONTROL, PARTIALLY CONTROL or SUPPRESS many types of woody brush and tree species, some of which are listed below:

Alder

Madrone

Alnus spp.

Arbatus menziesii

Eucalvotus

0ak

Eucalyptus spp.

Quercus spp.

Reed, giant

Tan Oak

Arundo donax

Lithocarpus densiflorus

Saltcedar

Willow

Tamarisk spp.

Salix spp.

Sweetgum

Liquidambar styraciflua

INJECTION AND FRILL APPLICATIONS

Woody vegetation may be controlled by injection or frill application of this product. Apply this product using suitable equipment which must penetrate into the living tissue. Apply the equivalent of 1 ml of this product per each 2 to 3 inches of trunk diameter (DBH). This is best achieved by applying a 50 to 100 percent concentration of this material either to a continuous frill around the tree or as cuts evenly spaced around the tree below all branches. As tree diameter increases in size, better results are achieved by applying diluted material to a continuous frill or more closely spaced cuttings. Avoid application techniques that allow runoff to occur from frill or cut areas in species that exude sap freely after frills or culting. In species such as this, make frill or cut at an oblique angle so as to produce a cupping effect and use undiluted material. For best results, application should be made during periods of active growth and after full leaf expansion.

This treatment WILL CONTROL the following woody species:

Sweetgum

Quercus spp.

Liquidambar styraciflua

Poplar

Sycamore

Populus spp.

Platanus occidentalis

This treatment WILL SUPPRESS the following woedy species:

Black gum Myssa sylvatica Hickory

Carya spp.

Dogwood

Maple, red

Cornus spp.

Acer rubrum

TURFGRASSES AND GRASSES FOR SEED PRODUCTION

PREPLANT AND RENDVATION

When applied as directed for "NONCROP USES", under conditions described, this product controls most existing vegetation prior to the planting or renovation of either turfgrasses or grass seed production areas.

For specific rates of application and instructions for control of various annual and perennial weeds, and woody brush and trees, see the "WEEDS CONTROLLED" section of this label.

For maximum control of existing vegetation, delay planting to determine if any regrowth from escaped underground plant parts occurs. Where repeat treatments are necessary, sufficient regrowth must be attained prior to application. For warm-season grasses, such as bermudagrass, summer or fall applications provide best control.

00 NOT DISTURB SOIL OR UNDERGROUND PLANT PARTS BEFORE TREATMENT. Titlage or renovation techniques such as vertical mowing, coring or slicing should be delayed for 7 days after application to allow proper translocation into underground plant parts.

TURFGRASSES

Where existing vegetation is growing in a field or unmowed situation, apply this product to actively growing weeds at the stages of growth listed in the "WEEDS CONTROLLED" section of this labet.

Where existing vegetation is growing under mowed turigrass management, apply this product after omitting at least one regular mowing to allow sufficient growth for good interception of the spray.

Desirable turigrasses may be planted following the above procedures.

GRASSES FOR SEED PRODUCTION

Apply this product to actively growing weeds at the stages of growth recommended in the "WEEDS CONTROLLED" section of this tabet

prior to planting or renovation of turf or forage grass areas grown for seed production.

DO NDT feed or graze treated areas within 8 weeks after application.

ANNUAL WEED CONTROL IN DORMANT BERMUDAGRASS AND BAHIAGRASS TURF

When applied as directed for "NONCROP USES" under the conditions described, this product will provide control or suppression of many winter annual weeds and tall fescue for effective release of dormant bermudagrass and bahiagrass turf. Refer to the rate table for Buccaneer alone under the "RELEASE OF BERMUDAGRASS and BAHIAGRASS" section of this label for recommended rates and volumes on the species to be suppressed or controlled. Treat only when turf is dormant and prior to spring greenup. Spot treatments or broadcast applications of this product in excess of 16 fluid dunces per acre may result in injury or delayed greenup in highly maintained turfgrass areas; i.e., golf courses, lawns, etc. DO NOT APPLY TANK MIXTURES of this product plus Oust in highly maintained turfgrass areas.

RELEASE OF BERMUDAGRASS OR BAHAGRASS

NOTE: Use only in areas where bermudagrass or bahiagrass are desirable ground covers and where some temporary injury or discoloration can be tolerated. Use tank mixtures of this product plus Oust only on railroads, highways, utility plant sites, or other right-of-way areas.

When applied as directed for "NONCROP USES" under the conditions described, this product will provide control or suppression of many winter annual weeds and tall fescue for effective release of dormant bermudagrass or bahiagrass. This product may be tank-mixed with Oust as recommended for residual control. Make applications to dormant bermudagrass or bahiagrass. Tank mixtures of this product plus

Oust may delay greenup. To avoid delays in greenup and minimize injury, do not add more than 1 ounce per acre of Oust on bermudagrass or more than 0.5 ounce per acre on bahiagrass, or treat when these grasses are in a semi-domant condition.

For best results on winter annuals, treat when plants are in an early growth stage (below 6 inches in height) after most have germinated. For best results on tall fescue, treat when fescue is in or beyond the 4- to 6-leaf stage.

WEEDS CONTROLLED

Rate recommendations for control or suppression of winter annuals and tall fescue are listed below:

Apply the recommended rates of this product alone or as a tank mixture in 10 to 25 gallons of water, plus 0.5 to 1 percent nonionic surfactant by total spray volume per acre.

For the best recommendation for the mixture of weeds within your geographic area, contact your Tenkoz member company representative.

WEEDS CONTROLLED OR SUPPRESSED WITH BUCCANEER® ALONE*

Buccaneer® FLUID OZ/ACRE

NOTE: C = ControlS = Suppression

Lolium multiflorum Speedwell, corn Veronica arvensis Yetch, common Vicia sativa

HEED COLORS

WEED SPECIES	8	12	16	24	32	64_
Barley, little Hordeum pusilium	S	C	С	С	С	С
Bedstraw, catchweed Galium aparine	2	С	C	C	С	С
Bluegrass, annual Poa annua	S	С	C.	С	C	С.
				_		
Chervil Chaerophyllum tainturieri	\$	С	C	С	C	C
Chickweed, common Stellaria media	S	C	С	C	С	C
Clover, crimson Trifolium incernatum	•	S	\$	С	C	C
Clover, large hop Trilolium campestre	•	S	S	C	С	С
Fescue, tall Festuca arundinaceae	•	•	•	٠	2	S
Geranium, Carolina Geranium carolinianum	•	•	S	S	С	C
Henbit Lamium amplexicaule	•	S	C	C	C	C
Ryegrass Italian			S	С	С	C

^{*}These rates apply only to sites where an established competitive turf is present.

WEEDS CONTROLLED OR SUPPRESSED WITH BUCCANEER® PLUS OUST*

NOTE: C = Control

S = Suppression

			Bı	ıccanı	eer®	+ Ot	15!	
B Weed Species	uccaneer (Ft. OZ/A) + OUST (OZ/A)	8 + 1/4	12 + 1/4	12 + 1/2	16 ÷ 1/4	!6 + !/2	12 + 1	16 + !
Barley, litt Hordeum	lle pusilium	С	С	С	С	С	С	С
Bedstraw, Galium a	catchweed parine	C	C .	C	C	C	С	C
Bluegrass Poa anno	-	S	C	С	С	С	C	C
Chervil Chaeropi	hydlum təinturieri	С	С	С	С	C	С	С
Chickwee Stellaria	d, commoл media	\$	С	С	С	С	С	С
Clover, cri	mson incamatum	S	S	S	S	С	C	С
Clover, lai <i>Trifolium</i>	rge hop campestre	٠	٠	S	S	2	C	С
Fescue, L Festuca	ill arundinaceae	•	•	•	•	• •	S	\$
	, Carolina m carolinianum	•	S	S	C	С	С	C
Henbit <i>Lamium</i>	amplexicaule	•	S	С	С	С	С	С
Ryegrass, Lolium n	, Italian n <i>ultiflorum</i>	•	S	S	Ç	C	C	С

Speedwell, corn Veronica arvensis	\$	C	C	C	C	С	С
Vetch, common Vicia sativa	Ĉ	£	£	С	С	С	С

^{*}These rates or mixtures of rates apply only to sites where an established competitive turf is present.

RELEASE OF ACTIVELY GROWING BERMUDAGRASS

When applied as directed, this product will aid in the release of bermudagrass by providing control of annual species listed in the "WEEDS CONTROLLED" section of this and the Oust label, and suppression or partial control of certain perennial weeds.

For control or suppression of those annual species listed on this label, use 1 to 3 pints of this product as a broadcast spray in 10 to 25 gallons of spray solution per acre. Use the lower rate when treating annual weeds below 6 inches in height (or length of runner in annual vines). Use the higher rate as weeds increase in size or as they approach flower or seedhead formation.

Use the higher rate of this product for partial control of the following perennial species. Use the lower rates for suppression of growth. For best results, see the "WEEDS CONTROLLEO" section of this label for proper stage of growth.

Bahiagrass

Ichnsongrass*

Paspalum notatum

Sorghum halepense

Bluestem, silver

Trumpetcreeper** Campsis radicans

Andropogon saccharoides

Vaseygrass

Fescue, tall

Festuca arundinacea

Paspalum urvillei

*Control at the higher rates.

**Suppression at higher rates only.

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This product may be tank-mixed with Oust. If tank-mixed, use no more than 1 to 2 pints per acre of this product with 1 to 2 ounces of Oust per acre.

Use the lower rates of both mixtures to control annual weeds below 6 inches in height (or runner length in annual vines) that are listed in the "WEEDS CONTROLLED" section of this booklet and the Oust label. Use the higher rates as annual weeds increase in size and approach the flower or seedhead stages.

Use the higher rates of this product to provide partial control of the following perennial weeds. Use the lower rates for suppression of growth.

Johnsongrass*

Diodia teres

Vaseygrass

Vervain, blue

Trumpetcreeper* Campsis radicans

Paspalum urvillei

Verbena hastata

Sorghum halepense Poorjoe**

Bahiagrass

Paspalum notatum

Bluestem, silver Andropogon saccharoides

Broomsedge Andropogon virginicus

Dock curly Rumex crispus

Dogfennel

Eupatorium capilliforium

Fescue, tall Festuca arundinacea

*Suppression at higher rates only.

**Control at the higher rates.

Use only on well-established bermudagrass. Bermudagrass injury may result from the treatment but regrowth will occur under moist conditions. Repeat applications in the same season are not recommended, since severe injury may result.

Read and carefully observe the cautionary statements and all other information appearing on the labels of all herbicides used.

COOL SEASON TURF GROWTH REGULATION

When applied as directed, this product will suppress growth and seedhead development of listed turf species in industrial sites.

This product is recommended for management of coarse turf on roadside rights-of-way or other industrial areas. Do not use on high-quality turf or other areas where some turf color changes cannot be tolerated. Slight turf discoloration may occur but turf will regreen and regrow under moist conditions as effects of this product wear off.

Apply 4 to 6 fluid ounces of this product per acre alone or in a recommended tank mixture. Spray volumes of 10 to 40 gallons per acre are recommended.

When using this product, mix 2 quarts of a nonionic surfactant per 100 gallons of spray solution.

This product can be used for growth and seedhead suppression of-

Tall Fescue Smooth Brome

For best results, apply this product in a recommended tank mixture to actively growing turigrasses after greenup in the spring of the year. For suppression of seedheads, applications must be made before boot-to-seedhead stage of development. Applications made from seedhead emergence until maturity may result in turf discoloration or

After moving or removal of seedheads, this product in a recommended tank mixture may also be used to suppress the growth of certain turigrasses. Allow turi to recover from stress caused by heat, drought or mowing before making applications. Applications made to turf under stress may increase the potential for discoloration or injury.

ANNUAL GRASSES

for growth suppression of some annual grasses such as annual ryegrass, wild barley and wild oats, apply 3 to 4 fluid ounces of this product in 10 to 40 gallons of spray solution per acre. Applications should be made when annual grasses are actively growing and before the seedheads are in the bool stage of development. Treatments made after seedhead emergence may cause injury to the desired grasses.

TANK MIXTURES

For the following tank mixtures, consult each product label for weeds controlled and the correct stage of application. On not treat turf under stress,

Tank mixtures plus 2,4-D Amine

For additional weed control benefits, up to 1 pound a.i. per acre of 2.4-0 amine may be added to the following tank mixtures. Consult the label for 2.4-D amine for weeds controlled.

TALL FESCUE

Buccaneer plus TelarTM

For suppression of tall fescue growth and seedheads, and control or partial control of some annual weeds, apply this tank mixture after greenup and prior to boot-to-seedhead stage of development. Use up to 0.5 ounce of Telar per acre.

This tank mixture can also be applied after mowing or removal of tall fescue seedheads for lurf growth suppression. Make only one of the above applications per growing season.

Buccaneer plus Oust

For suppression of tall fescue growth and seedheads, and control or partial control of some annual weeds, apply this tank mixture after greenup and prior to bool-to-seedhead stage of development. Use up to 0.25 ounce of Dust per acre.

Buccaneer plus Escori^{to}

This tank mixture can be applied after mowing or removel of Lall fescue seedheads for furf growth suppression and control or partial control of some annual weeds. Use up to 1/3 ounce of Escort per acre.

SMOOTH BROME

Buccaneer plus Oust

For suppression of smooth brome growth and seedheads and control or partial control of some annual weeds, apply this tank mixture after greenup and prior to boot-to-seedhead stage of development. Use up to 0.25 ounce of Oust per acre.

BAHIAGRASS SEEDHEAD AND VEGETATIVE SUPPRESSION

When applied as directed in the indicated noncrop areas (roadsides, airports, golf course roughs, and plant sites), this product will provide significant inhibition of seedhead emergence and will suppress vegelative growth for a period of approximately 45 days with single applications and approximately 120 days with sequential applications.

Apply this product 1 to 2 weeks after full greenup of babiagrass or after the babiagrass has been mowed to a uniform height of 3 to 4 inches. Applications must be made prior to seedhead emergence. Apply 6 fluid ounces per acre of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 10 to 25 gallons of water per acre.

Sequential applications of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume may be made at approximately 45 day intervals to extend the period of seedhead and vegetative growth suppression. For continued seedhead suppression, sequential applications must be made prior to seedhead emergence. Apply no more than 2 sequential applications per year. As a first sequential application, apply 4 fluid nunces of this product per acre plus nonionic surfactant. A second sequential application of 2 to 4 fluid ounces per

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acre plus nonionic surfactant may be made approximately 45 days after the last application.

A tank mixture of this product plus Oust may be applied only on roadsides for seedhead inhibition and vegetative suppression. Apply -6 fluid ounces per acre of this product plus 0.25 ounce per acre of Oust, plus 0.5 to 1 percent nonionic surfactant by total spray volume 1 to 2 waeks following an initial spring mowing. When using this product plus Oust for suppression of bahiagrass, make only 1 application per year.

CROPPING SYSTEMS

When applied as directed for "CROPPING SYSTEMS", under the conditions described, this product controls annual and perennial weeds listed on this label, prior to the emergence of direct seeded crops or prior to transplanting of crops listed on this label.

See "GENERAL INFORMATION" and "MIXING, ADDITIVES and APPLICATION INSTRUCTIONS" sections of this label for essential product performance information.

See the following "CROPPING SYSTEMS" sections for specific recommended uses.

EXTREME CARE MUST BE EXERCISED TO AVOID CONTACT OF SPRAY WITH FOLIAGE. GREEN STEMS OR FRUIT OF DESIRABLE CROPS, PLANTS, TREES OR OTHER DESIRABLE VEGETATION SINCE SEVERE DAMAGE OR DESTRUCTION MAY RESULT.

Repeat treatments may be necessary to control weeds regenerating from underground parts or seed. Except as otherwise specified on this labet, repeat treatments must be made before the crop emerges in accordance with the instructions of this labet.

Except as otherwise specified in a crop section of this label, the combined total of all treatments must not exceed 8 quarts per acre of this product per year.

For any crop not listed below, applications must be made at least 30 days prior to planting.

Do not harvest or feed treated vegetation for 8 weeks following application. Following spot treatment or selective equipment use, allow 14 days before grazing domestic livestock or harvesting forage grasses and legumes.

ROW CROPS
CORN (ALL)*
COTTON*
PEANUTS
SORGHUM (MILO)*
SOYBEANS*
SUGARCANE*

CEREAL GRAINS
BARLEY*
BUCKWHEAT*
MILLET (PEARL, PROSO)*
OATS*
RICE**
RYE*
TRITICALE*
WHEAT (ALL)*

WILD RICE*

CITHUS

CALAMONDIN

CHRONIA

CITRON

GRAPEFRUIT

KUMQUAT

LEMON

LIME

MANDARIN ORANI

MANDARIN ORANGE ORANGE (ALL) PUMMELO TANGELO

TANGERINE TANGORS TREE NUTS

ALMOND
BEECHNUT
BRAZIL NUT
BUTTERNUT
CASHEW
CHESTNUT
CHINOUAPIN
FILBERT (HAZELNUT)
HICKORY NUT

HICKORY NUT
MACADAMIA
PECAN
PISTACHIO

WALNUT (BLACK, ENGLISH)

VINE CROPS
GRAPES
KIWI FRUITS
TREE FRUITS
APPLE

APRICOTS
CHERRY (SWEET, SOUR)

TAUDOL

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HONEY BALL MELON***

HORSERADISH

KALE

LEEK

KOHLRABI

LENTILS

NECTARINE **OUVE** PEACH PEAR PLUM/PRUNE (ALL) OUINCE **YEGETABLES** ARTICHOKE, JERUSALEM ASPARAGUS* BEANS (ALL) **BEET GREENS** BEETS (RED, SUGAR) BROCCOLI (ALL) BRUSSELS SPROUTS CABBAGE (ALL) CABBAGE, CHINESE CANTALOUPE*** CARROT CAULIFLOWER CASABA MELON*** CELERIAC CELERY CHARD, SWISS CHICORY

LETTUCE MANGO MELON*** MELONS (ALL)*** MUSKMELON*** **MUSTARD GREENS** OKRA ONJON PARSLEY PARSHIPS PEAS (ALL) PEPPER (ALL)*** PERSIAN MELON*** POTATO (IRISH, SWEET) PUMPKIH*** RADISH RAPE GREENS RHUBARB RUTABAGA SHALLOT SPINACH (ALL) COLLARDS SOUASH CRENSHAW MELON*** (SUMMER, WINTER)*** CUCUMBER*** TOMATILLO*** EGGPLAHT*** TOMATO***†

TURNIP

YAMS

CHERIMOYA **COCOA BEANS**

COFFEE

DATES FIGS

GENIP GUAVA

JABOTICABA

JACKFRUIT

LONGAN

TACHEE MANGO

PAPAYA PASSION FRUIT

PERSIMMONS

PINEAPPLE****

SAPOTE (BLACK, MAMEX

POMEGRANATE

SAPODILLA

WHITE)

SOURSOP

TAMARIND

TEA

SUGAR APPLE

WATERCRESS***

WATERMELON***

BLACKBERRY BLUEBERRY BOYSENBERRY CRANBERRY CURRANT DEWBERRY ELDERBERRY GOOSEBERRY RUCKLEBERRY LOGANBERRY OLALLIEBERRY RASPBERRY (BLACK, RED)

FORAGE CROPS AND LEGUMES

ALFALFA*

ACEROLA

AYOCADO BANANA (PLANTAINS)

CANISTEL

*Spot treatments may be applied in these crops.

- **Do not treat rice fields or levees when the fields contain flood
- ***Apply only prior to planting. Allow at least 3 days between application and planting
- ****Do not feed or graze treated pineapple forage following applica-

†Use is restricted to direct seeded crops only.

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SMALL FRUITS AND BERRIES

ENDIVE

GARLIC***

GOURDS***

GROUND CHERRY***

HONEYDEW MELON***

FORAGE GRASSES* FORAGE LEGUMES*

TROPICAL CROPS ATEMOYA

BREADFRUIT

CARAMBOLA

When applying this product prior to transplanting crops into plastic mulch, care must be taken to remove residues of this product from the plastic prior to transplanting. Residues can be removed by 0.5 inch natural rainfall or by applying water via a sprinkler irrigation system.

Spot Treatment (Only those crops with "*" can be spot treated.) — Applications in growing crops must be made prior to heading of small grains and milo, initial pod set in soybeans, silking of corn, or bolt opening on cotton.

For forage grasses and forage legumes see "SPOT TREATMENT" in the "PASTURES" section of "CROPPING SYSTEMS" in this label.

For dilution and rates of application using boom or hand-held equipment, see "MIXING, ADDITIVES and APPLICATION INSTRUCTIONS" and "WEEDS CONTROLLED" sections of this label.

NOTE: FOR FORAGE GRASSES AND FORAGE LEGUMES, NO MORE IHAN ONE-TENTH OF ANY ACRE SHOULD BE TREATED AT ONE TIME. FOR ALL OTHER CROPS, DO NOT TREAT MORE THAN 1D PERCENT OF THE TOTAL FIELD AREA TO BE HARVESTED.

THE CROP RECEIVING SPRAY IN TREATED AREA WILL BE KILLED. TAKE CARE TO AVOID DRIFT OR SPRAY OUTSIDE TARGET AREA FOR THE SAME READON.

Selective Equipment—This product may be applied through recirculating sprayers, shielded applicators or wiper applicators in cotton and soybeans. Shielded and wiper applicators may also be used in tree crops and grapes. Wiper applicators may be used in wheat, rutabagas, forage grasses and forage legumes, including pasture sites and grain sorghum (milo).

See the "SELECTIVE EDUIPMENT" part of the "APPLICATION EQUIPMENT and TECHNIQUES" section of this label for information on proper use and calibration of this equipment.

Allow at least the following time intervals between application and

Cotton, Soybeans	7 days
Apples, Citrus, Pear	I day
Atemoya, Avocado, Breadfruit, Canistet, Carambola, Cherry, Grapes, Dates, Jabolicaba, Jackfruit, Longan, Lychee, Passion Fruit, Persimmons, Rutabagas,	
Sapodilla, Sapote, Soursop, Sugar Apple, Tamarind	4 days
Stone Fruit	7 days
Nut Croos, except pistachios	3 days
Pistachio nuts	21 days
Wheat ⁱ	15 days
Sorghum (mile)12	

⁴ Do not use roller applicators.

ASPARAGUS

When applied as directed for "CROPPING SYSTEMS" under the conditions described, this product controls weeds listed on this label in asparagus.

For specific rates of applications and instructions (or control of various annual and perennial weeds, see the "WEEDS CONTROLLED" section of this label.

Prior to Crop Emergence—Apply this product prior to crop emergence for the control of emerged labeled annual and perennial weeds. DD NOT APPLY WITHIN A WEEK BEFORE THE FIRST SPEARS EMERGE.

Spot Treatment—Apply this product immediately after cutting, but prior to the emergence of new spears. Do not treat more than 10 percent of the total field area to be harvested. On not harvest within 5 days of treatment.

² Do not feed or graze treated milo fodder. Do not ensile treated vegetation.

Postharvest—Apply this product after the last harvest and all spears have been removed. If spears are allowed to regrow, delay application until ferns have developed. Delayed treatments should be applied as directed or shielded spray in order to avoid contact of the spray with ferns, stems or spears. Direct contact of the spray with the asparagus may result in serious crop injury.

NOTE: Select and use recommended types of spray equipment for postemergence postharvest applications. A directed spray is any application where the spray pattern is aligned in such a way as to avoid direct contact of the spray with the crop. A shielded spray is any application where a physical barrier is positioned and maintained between the spray and the crop to prevent contact of spray with the crop.

BERRIES AND SMALL FRUITS

Wiper applicators may be used in cranberries in accordance with instructions in this section.

For other berries, apply as a preplant broadcast application, or as a directed spray or wiper application post-planting.

See "GENERAL INFORMATION" and "MOUNG, ADDITIVES and APPLICATION INSTRUCTIONS" sections of this label for essential product performance information.

See the "SELECTIVE EQUIPMENT" part of the "APPLICATION EQUIP-MENT and TECHNIQUES" section of this label for information on recommended use and calibration of this equipment.

Allow a minimum of 30 days between last application and harvest of cranberries. For other small truits and berries, allow a minimum of 14 days between last application and harvest.

For Wick or other Wiper Applicators—Mix 1 gallon of this product in 4 gallons of water to prepare a 20 percent solution.

In severe infestations, reduce equipment ground speed to ensure that adequate amounts of this product are wiped on the weeds. A second treatment in the opposite direction may be beneficial.

Do not permit herbicide solution to contact desirable vegetation, including green shoots, canes or foliage.

CORN

Hooded Sprayers—This product may be used through hooded sprayers for weed control between the rows of corn. Only hooded sprayers that completely enclose the spray pattern may be used.

A hooded sprayer is a type of shielded applicator. The spray pattern is completely enclosed on the top and all 4 sides by a hood, thereby shielding the crop from the spray solution. This equipment must be set up and operated in a manner that avoids bouncing or raising the hoods off the ground in any way. If the hoods are raised, spray particles may escape and come into contact with the crop, causing damage or destruction of the crop. The spray hoods must be operated on the ground or skimming across the ground. Tractor speed must be adjusted to avoid bouncing of the spray hoods. Avoid operation on rough or stoping ground where the spray hoods might be raised off the ground.

When applying to corn that is grown on raised beds, ensure that the hood is designed to completely enclose the spray solution. If necessary, extend the front and rear flaps of the toods to reach the ground in deep turrows.

Follow these requirements:

- The spray hoods must be operated on the ground or skimming across the ground.
- Do not apply more than 1 quart of this product per acre per application.
- Corn must be at least 12 inches tall, measured without extending leaves.
- Leave at least an 8 inch untreated strip over the drift row. For example, if the crop row width is 38 inches, the maximum width of the spray hood should be 30 inches.

- . Maximum tractor speed: 5 mph.
- · Maximum wind speed: 10 mph.
- · Use low-drift nozzles.

Crop injury may occur when the foliage of treated weeds comes into direct contact with teaves of the crop. Do not apply this product when the leaves of the crop are growing in direct contact with weeds to be treated. Droplets, mist, foam or splatter of the herbicide solution may contact the crop and cause discoloration, stunting or destruction.

Contact of this product in any manner to any vegetation to which treatment in not intended may cause damage. Such damage shall be the sole responsibility of the applicator.

For specific rates of application and instructions for control of various annual and perennial weeds, see the "WEEDS CONTROLLED" section of this label

On not graze or feed corn forage or fodder following applications of this product through hooded sprayers.

Do not apply more than 3 quarts of this product per acre per year for hooded sprayer applications.

FALLOW AND REDUCED TILLAGE SYSTEMS

FOR AERIAL APPLICATION IN CALIFORNIA, REFER TO SUPPLEMENTAL LARF!

Use this product in fallow and reduced tiltage systems for control of annual weeds prior to emergence of crops listed in this label. Refer to the "WEEDS CONTROLLED" section of this label for specific rates and instructions. This product may be applied using ground or aerial spray equipment. See the "APPLICATION EQUIPMENT and TECHNIQUES" section of this label for instructions.

TANK MIXTURES

- BUCCANEER® plus BANYEL
 plus NONIONIC SURFACTANT
 - BUCCANEER plus 2.4-D
 plus Nonionic Surfactant
- BUCCANEER plus GOAL^{em}
 plus Nonionic Surfactant

DO NOT APPLY BANYEL OR 2,4-0 TANK MIXTURES BY AIR IN CALIFORNIA.

Applications of 2,4-D or Banvel must be made at least 7 days prior to planting corn.

The addition of Banvet in a mixture with this product may provide short-term residual control of selected weed species. Some crop injury may occur if Banvet is applied within 45 days of planting. Refer to the Banvet and 2,4-D tabels for cropping restrictions and other use instructions.

Buccaneer® plus Goal Tank Mixtures

This product alone or in tank mixtures with Goal plus 0.5 to I percent nonionic surfactant by total spray volume will provide control of those weeds listed below.

Make applications when weeds are actively growing and at the recommended stages of growth. Avoid spraying when weeds are subject to moisture stress, when dust is on the toliage or when straw canopy covers the weeds.

Buccaneer 12 fluid oz/acre		Buccaneer 16 fluid	oz/acre
Wheat	18**	Annual grasses at left :	olus:
Barley	12*	Ryegrass.	
Bluegrass.		annual	6"
annua)	6*	Chickweed	61
Barnyardgrass	6"	Groundsel	6"
Rye	6*	Marestail	6~
		Rocket, London	67
		Shepherdspurse	6*
		Crabgrass	12"
		Johnsongrass,	
		seedling	12"
		Lambsquarters	12"
		Oats, wild	127
		Pigweed, redroot	12"
		Mustards	12"

NOTE: Use 32 fluid ounces of this product per acre where heavy weed densities exist.

Buccaneer 12 Ruid oz/acre + GOAL** 2 to 4 fluid oz/acre		Buccaneer 16 fluid oz/acre + GOAL** 2 to 4 fluid oz/acre		
Annual grasses above p	lus:	Annual weeds above p	Lus:	
Cheeseweed,		Cheeseweed.		
common	3"	соттол	6~	
Chickweed	3"	Groundsel	6*	
Groundse)	3"	Chickweed	12~	
Rocket, London	6"	Rocket, London	12~	
Shepherdspurse	6"	Shepherdspurse	12"	

NOTE: Use 32 fluid ounces of this preduct per acre in mixtures with 2 to 4 fluid ounces of Goal per acre where heavy weed densities exist.

*Maximum height or length in inches.

These recommended tank mixtures may be applied using ground or aerial spray equipment. Refer to the "WEEDS CONTROLLED" section of this tabel for specific rates and instructions.

ECOFARMING SYSTEMS

The recommendations made in this section are not registered for use in California

The Ecofarming System consists of the following rotation: winter wheat cora/sorghum, ecofallow.

Use the following tank mixtures for control of emerged annual weeds before planting corn or sorghum in the Ecolarming System.

	Lasso® at 2.5 to 3 quarts per acre	1
	ptus	
•	Atrazine at 0.75 to 1 pound a.i. per acre	1
	zulq	
	2,4-D at 0.375 to 0.5 pound a.i. per acre	
	plus	
	Buccaneer® at 16 to 20 fluid ounces per acre	
	,	

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^{**}Use the higher rate of Goal when weeds approach maximum recommended height or stands are dense.

The above tank mixture should be applied in 28-0-0 or 32-0-0 liquid fertilizer carrier at 20 to 30 gallons per acre. The liquid fertilizer may be diluted with water to achieve the desired carrier volume.

WEEDS CONTROLLED - The following weeds, up to a maximum height of 4 inches, will be controlled:

Brome, downy

Bromus tectorum

Lettuce, prickly Lactuca serriola

Cheat Bromus secatious

Pigweed, redroot Amaranthus retroflexus

Forsail, green Setaria viridis

Thistle, Russian Salsola kali

Foxtail, yellow Setaria lutescens

Wheat, volunteer Inticum aestivum

Kochia*

Kochia scoparia

*For improved control of kochia, add 4 fluid ounces per acre (0.125 pound a.i. per acre) of Banvel to the above tank mixture.

Risk of crop iriumy from 2.4-D or Banvel can be reduced by applying this treatment 7 to 14 days before planting.

Refer to the label booklet for Lasso® herbicide for preemergence weed control achieved by this tank mixture.

Refer to the specific product labels for crop rolation restrictions and cautionary statements for all products used in these tank mixtures.

AID TO TILLAGE

This product, when used in conjunction with preplant tillage practices, will provide control of downy brome, cheat, volunteer wheat, tansy mustard and foxtail. Apply 8 fluid ounces of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre. Make applications when weeds are actively growing and before they are 6 inches in height. Application must be followed by conventional tillage practices no later than 15 days after treatment

and before regrowth occurs. Allow at least 1 day after application before fillage. Tank mixtures with residual herbicides may result in reduced performance.

POSTHARVEST GRAIN SORGHUM, SORGHUM REGROWTH CONTROL

This product may be applied to grain sorghum (mile) stubble following harvest to suppress or control regrowth. Apply 1 quart of this product per acre for control, or 1.5 pints of this product per acre for suppression. Use 0.5 percent nonionic surfactant in 3 to 10 gallons of spray solution per acre.

PASTURES

Apply this product prior to planting forage grasses and legumes.

Pasture or Hay Crop Renovation—When applied as a broadcast spray, this product controls the annual and perennial weeds listed in this label prior to planting forage grasses or legumes. Remove domestic livestock before application and wait 8 weeks after application before grazing or harvesting.

Spot Treatment—When applied as a spot treatment as recommended, this product controls annual and perennial weeds listed in this label which are growing in pastures, forage grasses and forage legumes composed of bahiagrass, bermudagrass, bluegrass, brome, fescue, orchardgrass, ryegrass, timothy, wheatgrass, alfalfa or clover.

Wiper Application—When applied as directed, this product controls or suppresses the weeds listed under "WIPER APPLICATORS" in the "SELECTIVE EQUIPMENT" section of this label.

For spot treatment and wiper application, apply in areas where the movement of domestic livestock can be controlled. No more than one-tenth of any acre should be treated at one time. Further applications may be made in the same area at 30-day intervals. Remove domestic livestock before application and wait 14 days after application before grazing livestock or harvesting.

SUGARCANE

When applied as directed for "CROPPING SYSTEMS", under the conditions described, this product controls those emerged annual and perennial weeds listed on this label growing in or around sugarcane or in fields prior to the emergence of plant cane. This product will also control undesirable sugarcane.

NOTE: Where repeal treatments are necessary, do not exceed a total of 10.6 quarts of this product per acre per year. Oo not apply to vegetation in or around ditches, canals or ponds containing water to be used for irrigation.

Broadcast Treatment—Apply this product in 10 to 40 gallons of water per acre on emerged weeds prior to the emergence of plant cane.

For specific rates of application and instructions for control of various annual and perennial weeds, see the "WEEDS CONTROLLED" section of this label.

For removal of last stubble or ration cane, apply 4 to 5 quarts of this product in 10 to 40 gallons of water per acre to new growth having at least 7 or more new leaves. Allow 7 or more days after application before tillage.

Spot Treatment in or Around Sugarcane Fields—For dilution and rates of application using hand-held equipment, see "MIXING, ADDI-IVES and APPLICATION INSTRUCTIONS" and "WEEDS CONTROLLED" sections of this label.

For control of volunteer or diseased sugarcane, make a 1 percent solution of this product in water and spray to wet the foliage of vegetation to be controlled.

NOTE: When spraying volunteer or diseased sugarcane, the plants should have at least 7 new leaves.

Avoid spray contact with healthy cane plants since severe damage or destruction may result.

Do not feed or graze treated sugarcane forage following application.

CONSERVATION TILLAGE. MINIMUM TILLAGE AND NO-TILL SYSTEMS CORN AND SOYBEANS Tank Mixtures

The recommendations made in this section are not registered for use in California.

When applied as recommended under the conditions described, the tank mixtures listed in this section control many emerged weeds, and give preemergence control of many annual weeds where corn or soybeans will be planted directly into a cover crop, established sod or in previous crop residues.

Refer to specific product labels for crop rotation restrictions and cautionary statements of all products used in these tank mixtures. For mixing instructions, see the "MIXING, ADDITIVES and APPLICATION INSTRUCTIONS" section of this label.

Apply these tank mixtures in 10 to 20 gallons of water or 10 to 60 gallons of nitrogen solution per acre before, during or after planting. Do not apply these mixtures after crop emergence.

When tank mixing with residual herbicides, add an agriculturally approved nonionic surfactant at 0.5 to 1 percent by volume of spray solution. The addition of 1 to 2 percent dry ammonium sulfate by weight may increase the performance of this product.

NOTE: When using these tank mixtures, do not exceed 4 quarts of this product per acre.

CORN

For residual control, this product may be tank-mixed with the following herbicides or combination of herbicides:

LASSO/ALACHLOR ATRAZINE
LARIAT® CYANAZINE
BULLET® SIMAZINE
DUAL™ PROWL™
BICEP™ MICRO-TECH®
PARTNER®

For improved burndown, this product may be tank-mixed with 2,4-0 or dicamba. Applications of 2,4-0 or dicamba must be made at least 7 days prior to planting corn. See the "WEEDS CONTROLLED" section for specific rate information.

SOYBEANS

For residual control, this product may be tank-mixed with the following herbicides or combination of herbicides:

CANOPYTM LOROXTM PLUS COMMAND™ PREVIEW DUAL PROWL GEMINITE TURBOTH LASSO/ALACHLOR **SCEPTER™** LEXONEIN SENCORIM LINURON SQUADRON** **PURSUITIN** PURSUIT PLUS™ PARTNER MICRO-TECH®.

For improved burndown, this product may be tank-mixed with the following herbicides:

2,4-DB

2.4-0*

*See the label for 2.4-D for intervals between application and planting.

CORN AND SOYBEANS

Annual Weeds—For difficult-to-control weeds such as fall panicum, barnyardgrass, crabgrass, shattercane and broadleaf signalgrass up to 2 inches tall, and Pennsylvania smartweed up to 6 inches tall, apply this product at 2 pints per acre in these tank mixtures. For other labeled annual weeds, apply 1 to 1.5 pints of this product per acre when weeds are less than 6 inches tall, and 2 to 3 pints when weeds are over 6 inches tall. For a complete list of annual weeds controlled, see the "WEEDS CONTROLLED" section of this label.

Perennial Weeds—At normal application times in minimum tillage systems, perennial weeds may not be at the proper stage of growth for control. See the "WEEDS CONTROLLED" section of this label for the proper stage of growth for perennial weeds.

Use of 2 to 4 quarts of this product per acre in the tank mixtures mentioned above, under these conditions provides top kill and reduces competition from many emerged perennial grass and broadleaf weeds. For emerged perennial weeds controlled, see the "WEEOS CONTROLLED" section of this label.

To obtain the desired stage of growth, it may be necessary to apply this product alone in the late summer or fall and then follow with a label-approved, seeding weed-control program at planting.

USE OF THESE TANK MIXTURES FOR BERMUDAGRASS OR JOHN-SONGRASS CONTROL IN MINIMUM TILLAGE SYSTEMS IS NOT REC-OMMEROED. For bermudagrass control, follow the instructions under "CONTROL OF PERENNIAL WEEOS" section of this label and then use a label-approved, seedling weed-control program in a minimum tillage or conventional tillage system. For Johnsongrass control, follow instructions under "CONTROL OF PERENNIAL WEEDS" section of this label, and then use a label-approved, seedling weed-control program with conventional tillage.

PREHARVEST APPLICATIONS

When applied as directed under the conditions described, this product controls annual and perennial weeds listed on this label prior to the harvest of cotton, soybeans, grain sorghum (milo), and wheat.

For specific rates and application instructions for control of various annual and perennial weeds, see the "WEEDS CONTROLLED" section of this label.

This product may be applied by both ground and aerial application equipment. DO NOT APPLY MORE THAN 1 QUART PER ACRE OF THIS PRODUCT BY AIR. See the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this tabel for instructions for ground and aerial applications.

NOTE: Do not apply to crops grown for seed. Reduction in germination or vigor may occur.

The use of this product for preharvest grain sorghum (milo) is not registered in California.

SOYBEANS

Apply after pods have set and lost all green color. Allow a minimum of 7 days between application and harvest of soybeans. Care should be taken to avoid excessive seed shatter loss due to ground application equipment.

Do not graze or harvest treated crop for tivestock feed within 25 days of last preharvest application.

DO NOT APPLY MORE THAN 6 QUARTS PER ACRE OF THIS PRODUCT FOR PREHARVEST APPLICATIONS.

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Broadcast Applications—This product may be applied using either aerial or ground spray equipment. For ground applications with broadcast equipment, apply this product in 10 to 20 gallons of water per acre. For aerial applications, apply this product in 3 to 10 gallons of

This product provides weed control and cotton regrowth inhibition when applied prior to the harvest of cotton. Apply 1 to 2 quarts of this product in 3 to 10 gallons of water per acre for cotton regrowth inhibition. Do not apply more than 2 quarts of this product per acre for preharvest applications. THE USE OF ADDITIVES FOR PREHARVEST APPLICATION TO COTTON IS PROHIBITED.

This product may be tank mixed with DEF IM 6, Folex IM , or Prep IM to provide additional enhancement of cotton leaf drop.

Allow a minimum of 7 days between application and harvest of cotton. Apply after sufficient bolls have developed to produce the desired yield of cotton. Applications made prior to this time could affect maximum yield potential.

Do not feed or graze treated cotton forage or hay following preharvest applications.

GRAIN SORGHUM (MILO)

Make applications at 30% grain moisture or less and at least 7 days prior to harvest.

Apply up to 2 quarts of this product per acre.

WHEAT

Apply after the hard-dough stage of grain (30% or less grain moisture) and at least 7 days prior to harvest.

DO NOT APPLY MORE THAN 1 QUART PER ACRE OF THIS PRODUCT FOR PREHARVEST APPLICATIONS TO WHEAT.

TREE AND VINE CROPS

This product is recommended for weed control in established groves, vineyards, and orchards, or for site preparation prior to transplanting crops listed in this section. Applications may be made with boom equipment. CDA, shielded sprayers, hand-held and high-volume wands, lances, orchard guns or with wiper applicator equipment, except as directed in this section. See the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label for specific information on use of equipment.

When applying this product, refer to the "WEEDS CONTROLLED" section of this label and to specific recommendations in this section for rates to be used.

NOTE

Repeat treatments may be necessary to control weeds originating from underground parts of untreated weeds or from seeds. This product does not provide residual weed control. For subsequent weed control, use repeated applications of this product. Do not apply more than 10.6 quarts of this product per acre per year.

EXTREME CARE MUST BE EXERCISED TO AVOID CONTACT OF HERBI-CIDE SOLUTION, SPRAY, DRIFT OR MIST WITH FOLIAGE OR GREEN BARK OF TRUNK, BRANCHES, SUCKERS, FRUIT OR OTHER PARTS OF TREES OR VINES, CONTACT OF THIS PRODUCT WITH OTHER THAN MATURED BROWN BARK CAN RESULT IN SERIOUS CROP DAMAGE.

AVOID PAINTING OUT STUMPS WITH THIS PRODUCT AS INJURY RESULTING FROM ROOT GRAFTING MAY OCCUR IN ADJACENT TREES.

Reduced control may result when applications are made to annual or perennial weeds that have been mowed, grazed or cut and have not been allowed to regrow to the recommended stage for treatment.

For specific rates of applications and instructions, see the "WEEDS CONTROLLED" section of this label, and to specific recommendations which follow.

MIDDLES MANAGEMENT

FOR ANNUAL WEEDS IN MIDDLES BETWEEN ROWS OF TREE AND VINE CROPS

For citrus crops, treat uniformly between trees.

BUCCANEER®

BUCCANEER plus GOAL

This product alone or in mixtures with Goal will control or suppress the annual weeds listed below.

Apply the recommended rates of this product, either alone or in mixtures with Goal, plus 0.5 to 1 percent nonionic surfactant by spray volume in 3 to 10 gallons of water per acre. Apply when weeds are actively growing and less than 6 inches in height or diameter. If weeds are under drought stress, irrigate prior to application. Reduced control may occur if weeds have been mowed prior to application. Up to 43 fluid ounces per acre of this product may be used to control weeds, which have been mowed, are stressed or are growing in dense populations.

WEED SPECIES .	MAXIMUM HEIGHT/ DIAMETER (INCHES)	RATE PE BUCCANEERS (FLUID OUNCES)	© GOAL (FLUID
Barley Hordeum vulgare	6	8	_
Bluegrass, annual Poa annua			
Barnyardgrass Echinochloa crus-galli	6	17	- .
Chickweed, common Stellaria media			
Red Maids Calandrinia ciliata			

WEED SPECIES	MAXIMUM HEIGHT/ DIAMETER (INCHES)	RATE PER ACRE BUCCANEER® GOAL (FLUID (FLUID OUNCES) OUNCES)
Crabgrass Digitaria spp.	6	16
Fleabane, hairy Conyza bonariensis	-	OR .
Groundsel, common Senecio vulgaris	<u> </u>	16 to 32 + 4 to 16**
lunglerice Echinochloa colonum		1 10 10
Lambsquarters, common Chenopodium album		-
Pigweed, redroot Amaranthus retroflexus	· [
Rocket, Landon Sisymbrium irio		
Ryegrass, common Lolium multiflorum	}	
Shepherdspurse Capsella bursa-pastoris		·
Sowthistle, annual Sonchus oleraceus	{	
Cheeseweed, common Malva spp.	3	12 to 32 + 4 to 16
Cheeseweed, common Malva spp.	6	16 to 32 + 4 to 16

Filaree* Erodium spp.		
Horseweed/Marestail Conyza canadensis		
Nettle, stinging Urtica dioica		
Purselane, common* Purtulaca oleracea		

^{*}Suppression only.

STRIPS

FOR ANNUAL AND PERENNIAL WEEDS IN STRIPS OF TREE AND VINE CROPS

TANK MIXTURES WITH RESIDUAL HERBICIDES

When applied as a tank mixture, this product provides control of the emerged annual weeds and control or suppression of emerged perennial weeds listed in this label. The following residual herbicides will provide preemergence control of those weeds listed in the individual product labels.

-	BUCCANEER plus SIMAZINE 80W	4
	BUCCANEER plus SIMAZINE 4L	-
•	BUCCANEER plus SIMAZINE, PRINCEP CALIBER 90	•
	BUCCAREER plus KROYAR II	
	BUCCANEER plus KROVAR I	
	BUCCANEER plus KARMEXTM DF	-
	BUCCANEER® plus GOAL 2XL	

^{**}The mixture of this product plus Goal is recommended when weeds are stressed or growing in dense populations.

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	BUCCANEER plus SOLICAMIM 80DF	-
	BUCCANEER plus SURFLAN AS	
	BUCCANEER plus SURFLAN 75W	
	BUCCANEER plus SIMAZINE (80W. or 4L, or Princep Caliber 90) plus Surflan (AS or 75W)	•
	BUCCANEER plus GOAL 2XL plus SURFLAN (AS or 75W)	-
	BUCCANEER Plus GOAL 2XL plus SIMAZINE (80W, or 4L, or PRINCEP CALIBER 90)	•
•	BUCCANEER plus GOAL 2XL plus SURFLAN (AS or 75W) plus SIMAZINE (80W, 4L, or PRINCEP CALIBER 90)	•

Do not apply these tank mixtures in Puerto Rico.

When tank-mixing with residual herbicides, add an agriculturally approved nonionic surfactant at 0.5 to 1 percent by volume of spray solution.

Refer to the individual product labels for specific crops, rates, geographical restrictions and precautionary statements.

Read and carefully observe the label claims, cautionary statements, rates and all other information on the labels of all products.

RECOMMENDED RATES

Annual Weeds—Apply 1 to 5 quarts per acre of this product in these tank mixtures. Use rates at the higher end of the recommended range when weeds are stressed, growing in dense populations or are greater than 12 inches tall.

Perennial Weeds—Apply 1 pint to 5 quarts per acre of this product in these tank mixtures to control or suppress perennial weeds. Follow the recommendations in the "WEEDS CONTROLLED" section of this tabel for stage of growth and application rates for specific perennial weeds.

■ BUCCANEER® plus GOAL plus SIMAZINE/SURFLAN

This product plus low rates of Goal in 3-way or 4-way mixtures with simazine and/or Surflan will provide postemergence control of the weeds listed below.

Refer to the individual simazine and Surflan labels for preemergence rates, weeds controlled, precautionary statements and other important information.

Apply these tank mixtures in 3 to 40 gallons of water, Add 0.5 to 1 percent nonionic surfactant by total spray volume to the spray solution.

Apply 1 to 5 quarts per acre of this product plus 4 to 48 fluid ounces per acre of Goal plus labeled rates of simazine and/or Surflan to control the following weeds:

Barley, wild Hordeum leporinum

Bluegrass, annual Poa annua

Cheeseweed, common Malva spp.

Chickweed, common Stellaria media

Filaree*
Erodium soo.

Fleabane, hairy Conyza bonariensis

Groundsel, common Senecio vulgaris Horseweed/Marestait Convza canadensis

Nettle, stinging Urtica dioica

Pineappleweed Matricaria matricariodes

Rocket, London Sisymbrium irio

Shepherdspurse
Capsella bursa-pastoris

Sowthistle, annual Sonchus oleraceus

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*Use a minimum of 1.5 quarts of this product in these minures.

NOTE: This recommendation does not preclude the use of Goal in these mixtures at higher, labeled rates for preemergence weed control.

PERENNIAL GRASS SUPPRESSION ORCHARD FLOORS

When applied as directed, this product will suppress vegetative growth as indicated below.

Bahiagrass

This product will provide significant inhibition of seedhead emergence and will suppress vegetative growth for a period of approximately 45 days with a single application and approximately 120 days with sequential applications. Apply this product 1 to 2 weeks after full green-up or after mowing to a uniform height of 3 to 4 inches. Applications must be made prior to seedhead emergence. Apply 6 fluid ounces of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 10 to 25 gallons of water per acre.

Sequential applications of this product plus nonionic surfactant may be made at approximately 45-day intervals to extend the period of seedhead and vegetative growth suppression. For continued seedhead suppression, sequential applications must be made prior to seedhead emergence. Apply no more than 2 sequential applications per year. As a first sequential application, apply 4 fluid ounces of this product plus nonionic surfactant. A second sequential application of 2 to 4 fluid ounces may be made approximately 45 days after the last application.

Bermudaerass

For burndown, apply 1 to 2 quarts of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 20 gallons of water per acre. Use 1 quart of this product in 3 to 20 gallons of water per acre east of the Rocky Mountains. Use 1 to 2 quarts of this product in 3 to 10 gallons of water per acre west of the Rocky Mountains. Use this treatment only if reduction of the bermudagrass stand can be tolerated. When burndown is required prior to harvest, allow at least 21 days to ensure sufficient time for burndown to occur.

Suppression only (east of the Rocky Mountains)—Apply 6 to 16 Ituid ounces of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 20 gallons of water per acre no sooner than 1 to 2 weeks after full green-up. Moving prior to application may occur provided a minimum height of 3 inches is maintained. Rates of 6 to 10 fluid ounces of this product plus nonionic surfactant should be used in shaded conditions or where a lesser degree of suppression is desired. Sequential applications may be made when regrowth occurs and bermudagrass injury and stand reduction can be tolerated.

Suppression only (west of the Rocky Mountains)—Apply 16 fluid ounces of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 10 gallons of water per acre to bermudagrass up to 6 inches in height and no sooner than 1 to 2 weeks after full green-up. Mowing prior to application may occur provided a minimum height of 3 inches is maintained. Sequential applications may be made when regrowth occurs and bermudagrass injury and stand reduction can be tolerated.

Cool Season Grass Covers

For suppression of tall fescue, fine fescue, prchardgrass and quackgrass, apply 8 fluid ounces of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 10 to 20 gallons of water per acre. For best suppression, add ammonium sulfate to the spray solution at a rate of 2 percent by weight or 17 pounds per 100 gallons of spray solution.

For suppression of Kentucky bluegrass covers, apply 6 fluid ounces of this product plus 0.5 to 1 percent nonionic surfactant. Do not add ammonium sulfate.

For best results, mow cool-season grass covers in the spring to even their height and apply the recommended rate of this product 3 to 4 days after mowing. Avoid treating cool season grass covers under poor growing conditions, such as drought stress (drip irrigation), disease or insect damage.

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TANGET STATES OF THE PROPERTY
LOW VOLUME APPLICATION (FLORIDA AND TEXAS)

For burndown or control of the weeds listed, apply the recommended rates of this product plus 0.5 to 1 percent nonionic surfactant by total spray volume in 3 to 30 gallons of water per acre. Where weed foliage is dense, use 10 to 30 gallons of water per acre.

Annual Weeds

Goatweed—Apply 2 to 3 quarts per acre of this product plus 17 pounds of ammonium sulfate per 100 gallons of water plus 0.5 to 1 percent nonionic surfactant by total spray volume. Apply in 20 to 30 gallons of water per acre when plants are actively growing. Use 2 quarts per acre when plants are less than 8 inches tall and 3 quarts per acre when plants are greater than 8 inches. If goatweed is greater than 8 inches tall, the addition of Krovar II or Karmex may improve control. Use tabeled rates for these residual products.

Read and carefully observe the label claims, cautionary statements, rates and all other information on the Krovar II and Karmex labels.

Perennial Weeds

Apply when weeds are actively growing and at the growth stages listed in the "PERENNIAL WEEDS CONTROLLED" section of this label. If perennial weeds are mowed, allow weeds to regrow to the recommended stage of growth.

S = Suppression PC = Partial control	B = Burndown C = Control								
WEED Species	Buccaneer® RATE PER ACR								
Bermudagrass Guineagrass	В	•	PC	C					
Texas and Florida Ridge Florida Flatwoods	B •	C B	C C	C					
Paragrass	В	С	c	C					
Torpedograss	\$		PC	C					

TREE CROPS

Citrus*****: calamondin, chironja, citron, grapefruit, kumquat, lemon, lime, mandarin orange, orange, pummelo, tangelo, tangerine, tangers.

Nuts**: almond, beechnut, Brazil nut, butternut, cashew, chestnuts, chinquapin, filbert, hazel nut, hickory nut, macadamia, pecan, pistachio, walnut.

Pome Fruit****: apple, loquat, mayhaw, pear, quince.

Stone Fruit***: apricots, cherries, nectarines, olives, peaches, plums/prunes.

For cherries, any application equipment listed in this section may be used in all states.

For citron and olives, apply as a directed spray only.

Any application equipment listed in this section may be used in apricots, nectarines, peaches and plums/prunes growing in Arizona, California, Colorado, Idaho, Kansas, Kentucky, New Jersey, North Dakota, Oklahoma, Oregon, Texas, Utah and Washington, except for peaches grown in the states specified in the following paragraph. In all other states use wiper equipment only.

For PEACHES grown in Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina and Tennessee only, apply with a shielded boom sprayer or shielded wiper applicator, which prevents any contact of this product with the foliage or bark of trees. Apply no later than 90 days after first bloom. Applications made after this time may result in severe damage. Remove suckers and low-hanging limbs at least 10 days prior to application. Avoid applications near trees with recent pruning wounds or other mechanical injury. Apply only near trees which have been planted in the orchard for 2 or more years. EXTREME CARE MUST BE TAKEN TO ENSURE NO PART OF THE PEACH TREE IS CONTACTED.

Iropical Fruit: acerola*, atemoya*, avocado*, banana*****, breadfault*, canistel*, carambola*, chenimoya*, cocoa beans*, coffee****, dates*, figs*, genip*, guava*****, jaboticaba*, jackfruit*, longan*, lychee*, mango*, mayhaw*, papaya*****, passion fruit*, persimmons*, plantains****, pomegranate*, sapodilla*, sapote*, soursop*, sugar apote*, tamarind*, tea*. In coffee and banana, delay applications 3 months after transplanting to allow the new coffee or banana plant to become established.

NOTE:

- *Allow a minimum of 14 days between last application and harvest.
- **Allow a minimum of 3 days between last application and harvest of these crops, except pistachio nuts. For pistachio nuts allow a minimum of 21 days between last application and harvest.
- ***Allow a minimum of 17 days between last application and harvest
- ****Allow a minimum of 28 days between last application and harvest.
- *****Allow a minimum of 1 day between tast application and harvest.

VINE CROPS

Xiwi Fruit

Grapes: Any variety of table, wine or raisin grape may be treated with any equipment listed in this section.

Applications should not be made when green shoots, canes, or foliage are in the spray zone.

Allow a minimum of 14 days between last application and harvest. In the northeast and Great Lakes regions, applications must be made prior to the end of bloom stage of grapes to avoid injury.

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PIDEF is a trademark of Mobay Chemical Company.

14 Microfoil is a trademark of Union Carbide Agricultural Products.

Withru-Valve is a trademark of Waldrum Specialties, Inc.

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This product is protected by U.S. Patent No. 4,405,531. Other patents pending. No license granted under any non-U.S. patent(s).

EPA Reg. No. 524-445-55467

2114/71-1/53

In case of an emergency involving this product, Call Collect, day or night, (314) 694-4000.

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Manufactured for: Tenkoz Inc. 100 North Point Center East, Swite 330 Alpharetta, GA 30022 U.S.A.

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EPA Reg. No. 524-445-55467

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PAPERWORK REDUCTION ACT NOTICE and INSTRUCTIONS

PAPERWORK REDUCTION ACT NOTICE: Public reporting burden for this collection of information is estimated to average 0.85 h response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, inclusing suggestions for reducing this burden, to Chief, Information Policy Branch, (2136), U.S. Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460.

INSTRUCTIONS: This form is to be used for all applications for new registration, and use reregistration, amendment, resubmission, to applic for notifications, final printed labeling, reregistration, atc. In order to process an application for a new registration submitted on this form, the following material must accompany the application:

- 1. Certification with Respect to Citation of Data (EPA Form 8570-29). [If not exempted by 40 CFR 152.81 (b) (4)];
- 2. Confidential Statement of Formula (EPA Form 8570-4);
- 3. Formulator,a Exemption Statement (EPA Form 8570-27);
- 4. Five copies of draft labeling:
- 5. Three copies of any data submitted;
 - 6. Authorization letter where applicable;
 - 7. Matrices where applicable.

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Submission of Data - Data submitted in support of this application must be submitted in accordance with PR Notice 86-5.

SPECIFIC INSTRUCTIONS: Please read the instructions listed below before completing this application. First determine the type of registration, listed in Block A, for which you are submitting this application. For applications submitted in connection with New Registration actions, Sec 1, II), and IV must be completed by the applicant. For applications submitted in connection with amended reregistration actions, resubmissions, notifications, reregistrations, etc., Sections I, II, and IV must be completed by the applicant.

Block A - Check the appropriate action for which you are submitting this form.

SECTION 1 - This section must be completed, as applicable, for all registration actions.

- Company/Product Number Insert your Company Number, if one has been assigned by EPA. This number may have been assigned to you as a
 basic registrent, a distributor, or as on establishment. If your product is registered, insert the Product Number.
- 2. EPA Product Manager If known, fill in the name and PM number of the EPA Product Manager.
- 3. Proposed Classification Specify the proposed classification of this product,
- 4. Product Name Enter the complete product name of this pesticide as it will appear on the label. The name must be specific to this product only. Duplication of names is not permitted among products of the same company. Do not include any brand name or company line designations.
- 5. Name and Address of Applicant The name of the firm or person and address shown in your application is the person or firm to whom the registration will be issued. If you are acting in behalf of another party, you must submit euthorization from that party to act for them in registration matters. An applicant not residing in the United States must have an authorized agent residing in the United States to act for them in all registration matters. The name and complete mailing address of such an agent must accompany this application.
- 6. Expedited Review FIFRA section 3 (c) 3 (B) provides for expedited review of applications for registration, or amendments to existing registration that are similar or identical to other posticide products that are currently registered with the EPA. In order for your application to be eligible for expedited review, you must provide us with the EPA Registration Numbor and product name of the product you believe is similar to or identical to your product. The product must be similar or identical in both formulation and labeled uses.

SECTION II - This section must be completed for all applications submitted to amend the registration only of a currently registered product (Amendment), for a resubmission in response to an Agency letter, for notifications to the Agency, for the submission of final printed labeling, for reregistration and for any other action that pertains to a specific EPA-registered product. This section is not to be used for a new application for registration.

1. Subject of aubmission - Check the applicable block and provide the Agency letter date if appropriate. Provide a brief explanation of the purposets for the submission, such as "the addition of a site, pest or crop (specify)"; "amend the Confidential Statement of Formula by..."; "reregistration submission"; "general label revision of use directions." Attach a separate page if additional space is needed.

SECTION III (Packaging and Container Information) - This Section must be completed for all applications submitted in connection with new registration or applicable amendments.

- Type of Packaging Check the appropriate block if your product will be packaged in the indicated packaging types.
 Indicate the size of the individual packets and number per retail container.
- 2. Type of Retail Container Indicate type of container in which product will be marketed.
- 3. Location of Net Contents Indicate the location of the net contents information for your product.
- 4. Size(s) of Retail Container Specify the net contents of all retail containers for your product.
- 5. Location of Use Directions Indicate the location of the use directions for your product.
- 6. Manner in which label is effixed to product Indicated the method product label is attached to retail container.

SECTION IV (Contect Point) - This Section must be completed for all applications for Registration actions, i.e., new products registration, resubmission, "me-too," reregistration, etc.

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- 1-5. Self-explenatory.
- 6. EPA Use Only.

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Monsanto

Monsanto Company Suite 1100 700 14th Street, N.W. Washington, D.C. 20005

Nov. 5, 1997

Hand Delivered

Office of Pesticide Programs
Document Processing Center (NOTIF)
U.S. Environmental Protection Agency
Room 266A, Crystal Mall #2
1921 Jefferson Davis Highway
Arlington, VA 22202

Attention:

Mr. James A. Tompkins (7505C)

Team Leader (25)

Subject:

New Brand Name: Buccaneerô Herbicide

Distributor Supplemental under EPA Reg. No. 524-445-55467

Dear Mr. Tompkins:

Monsanto and Tenkoz Inc. have reached an agreement so that Monsanto requests that the Agency grant a Distributor Supplemental registration allowing Tenkoz to distribute "Buccaneer Herbicide". This constitutes notification to EPA of the use of a new brand name "Buccaneer Herbicide" for EPA Registration Number 524-445-55467. We enclose five (5) copies of draft product labeling for this new product. Also enclosed are a completed forms 8570-5 and a form 8570-1 for your records.

The Buccaneer Herbicide labeling is comprised completely of text that has have been already approved by the Agency on other 524-445 brands; this label is merely a rearrangement of the desired text into a single label booklet. This label is identical to the text submitted for Honcho Herbicide in Monsanto's letter dated 7-Oct-97, except for the changes to accommodate the brand name and distributor change. I enclose a copy of that lener for your reference regarding the sources of all elements of the label text.

If you have any questions on this matter please feel free to contact me through Dr. Russell P. Schneider or directly at 314-694-1582.

Sincerely.

Stephén J. Wratten Manager, Registrations

cc:

R. P. Schneider

D. Fee-White

D. Rasmusson

F. Hedgecock

Monsanto

Monsanto Company Suite 1100 700 14th Street, N.W. Washington, D.C. 20005

January 5, 1998

Hand Delivered

Office of Pesticide Programs
Document Processing Center (Final Printed Labeling)
U.S. Environmental Protection Agency
Room 266A, Crystal Mall #2
1921 Jefferson Davis Highway
Arlington, VA 22202

Attention:

Mr. James A. Tompkins (7505C)

Team Leader (25)

Subject:

Buccaneerô Herbicide (EPA Reg. No. 524-445-55467)

Submission of Final Printed Supplemental Labels

Aerial Application in Fresno County

Dear Mr. Tompkins:

On 5-Nov-97, Monsanto submitted to EPA proposed supplemental labeling for the above product using the Notification process. A label for aerial application of Roundup: Herbicide (524-445) has already been approved, and this action was merely intended to extend this use to the alternate brand name "Buccaneer Herbicide". Five (5) copies of the Final Printed Label are enclosed for your records. It is identified by the Print Plate Number 21147V1-5 and is dated 5-Nov-97.

In the course of finalizing this label, quality assurance review discovered that an incorrect template had been used to produce the proposed labeling submitted to EPA on 5-Nov-97, so that it contained the CAUTION signal word rather than the proper WARNING wording as required on EPA Reg. No. 524-445. This error has been corrected in the Final Printed Labeling. Monsanto emphasizes that the incorrect labeling was not printed or distributed, and the error was confined solely to the draft text submitted to the Agency.

Mr. James A. Tompkins 5-Jan-98 Page 2

A copy of the Roundup Herbicide supplemental label for Aerial Application in Fresno County is enclosed for your reference and comparison. It was approved by the Agency on 9-Dec-93 and was submitted as Final Printed Labeling on 28-Jan-94. The only text change for the Buccaneer Herbicide label involve changes related to the brand name, distributor name, company number, and their decision not to include a telephone contact number.

If you have any questions on this matter please feel free to contact me through Dr. Russell P. Schneider or directly at 314-694-1582.

Sincerely.

Stephen J. Wratten Manager, Registrations

cc:

R. P. Schneider

D. Fee-White

D. Rasmusson

A. Hedgecock

K. Estes, Tenkoz

Please read instructions	on reverse before completing f	опп	Form Appl	raved. OMB No. 2070	0-0060. Ap	provel expir	es 05-31-9
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PAPERWORK REDUCTION ACT NOTICE and INSTRUCTIONS

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- 1. Certification with Respect to Citation of Data (EPA Form 8570-29). [If not exempted by 40 CFR 152.81 (b) (4)];
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Block A - Check the appropriate action for which you are submitting this form.

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- Company/Product Number Insert your Company Number, if one has been essigned by EPA. This number may have been assigned to you as a
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- 2. EPA Product Manager If known, fill in the name and PM number of the EPA Product Manager.
- 3. Proposed Classification Specify the proposed classification of this product.
- 4. Product Name Enter the complete product name of this pesticide as it will appear on the label. The name must be specific to this product only. Duplication of names is not permitted among products of the same company. Do not include any brand name or company line designations.
- 5. Name and Address of Applicant The name of the firm or person and address shown in your application is the person or firm to whom the registration will be issued. If you are acting in behalf of another party, you must submit authorization from that party to act for them in registration matters. An applicant not residing in the United States must have an authorized agent residing in the United States to act for them in all registration matters. The name and complete mailing address of such an agent must accompany this application.
- 6. Expedited Review FIFRA section 3 (c) 3 (B) provides for expedited review of applications for registration, or amendments to existing registrations, that are similar or identical to other pesticide products that are currently registered with the EPA. In order for your application to be eligible for expedited review, you must provide us with the EPA Registration Number and product name of the product you believe is similar to or identical to your product. The product must be similar or identical in both formulation and labeled uses.

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1. Subject of submission - Check the applicable block and provide the Agency letter date if appropriate. Provide a brief explanation of the purpose(s) for the submission, such as "the addition of a site, pest or crop (specify)"; "amend the Confidential Statement of Formule by..."; "reregistration submission"; "general label revision of use directions." Attach a separate page if additional space is needed.

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- 1-5. Self-explanatory.
- 5. EPA Use Only.

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SUPPLEMENTAL LABELING

READ AND FOLLOW THE ENTIRE LABEL FOR ROUNDUP® HERBICIDE AND THE "FOR AFRIAL APPLICATION IN CALIFORNIA ONLY" SUPPLEMENTAL LABEL BEFORE PRO-CEEDING WITH THE USE DIRECTIONS CONTAINED IN THIS SUPPLEMENTAL LABELING.

"Label" as used in this supplemental labeling refers to the label booklet for Roundup herbicide, the "FOR AERIAL APPLICATION IN CALIFORNIA ONLY" supplemental label,

and this supplement.

1/28/94



(EPA Reg. No. 524-445)

FOR AERIAL APPLICATION IN FRESNO COUNTY, CA ONLY FROM FEBRUARY 15 THROUGH MARCH 31 ONLY,

FOR AERIAL APPLICATION OUTSIDE THESE DATES, REFER TO THE "FOR AERIAL APPLICATION IN CALIFORNIA ONLY" STATEWIDE SUPPLEMENTAL LABEL.

Keep out of reach of children.

WARNING! AVISO!

In case of an emergency involving this product, Call Collect, day or night, (314) 694-4000.

Roundup* is a registered trademark of Monsanto Company.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in any manner inconsistent with its labeling.

This label mitst be in the possession of the user at the time of the herbicide application.

See the "GENERAL INFORMATION" and "MIXING, ADDITIVES AND APPLICATION INSTRUCTIONS" sections of the label booklet for essential product information

See the "CROPPING SYSTEMS" section of the label booklet for specific recommendations on the use of this product.

Applicable Area

This supplement only applies to the area contained inside the following boundaries within Fresho County, California only.

North: South: Fæst:

West

Fresno County line Fresho County line State Highway 99 Fresno County line

GENERAL INFORMATION

Always read and follow the label directions and precautionary statements for all products used in the aerial application.

Observe the following directions to minimize offsite movement during aerial application of Roundup herbicide, Minimization of off-site movement is the responsibility of the grower, Pest Control Advisor, and aerial applicator,

Written Recommendations

A written recommendation MUST be submitted by or on behalf of the applicator to the Fresno County Agricultural Commissioner 24 hours prior to the application. This written recommendation MUST state the precimity of surrounding crops, and that conditions of each manufacturer's applicable product label(s) and this label have been satisfied.

Aerial Applicator Training and Equipment

Aerial application of Roundup herbicide is limited to filets who have successfully completed a Fresho County Agricultural Commissioner and California Department of Pesticide Regulation approved training program for aerial application of herbicides. All aircraft must be inspected, critiqued in flight, and certified at a Fresno County Agricultural Commissioner approved fly-in. Test and calibrate spray equipment at intervals sufficient to insure that proper rates of herbicides and adjuvants are being applied during commercial use. Applicator must document such calibrations and testing. Demonstration of performance at Fresno County Agricultural Commissioner approved "fly-ins" constitutes such documentation, or other written records showing calculations and measurements of flight and spray parameters acceptable to the Fresno County Agricultural Commissioner.

Application at night - Do not apply this product by air earlier than 30 minutes prior to sunrise and/or later than 30 minutes after sunset without prior permission from the Fresno County Agricultural Commissioner.

To report known or suspected misses of Roundup herbicide, call 1-800-ROUNDUP.

for additional information on the proper serial application of Roundup herbicide, call (916) 784-

Read the 'LIMIT OF WARRANTY AND LIABILITY' in the label for Roundur, landable before using this product. Those terms apply to this supplemental labeling and if those terms are not exceptable, return the product unopened at once.

HAV-3579-17544

@ MONSANTO COMPANY 1934

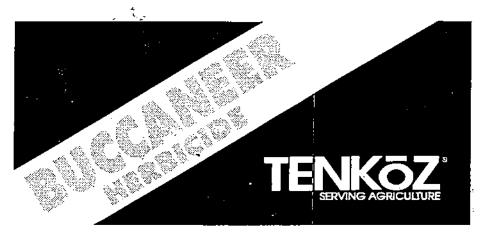
MONSANTO COMPANY AGRICULTURAL PRODUCTS** ST. LOUIS, MISSOURI 63167

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SUPPLEMENTAL LABELING

READ AND FOLLOW THE ENTIRE LABEL FOR BUCCANEER® HERBICIDE AND THE "FOR AERIAL APPLICATION IN CALIFORNIA ONLY" SUPPLEMENTAL LABEL BEFORE PROCEEDING WITH THE USE DIRECTIONS CONTAINED IN THIS SUPPLEMENTAL LABELING.

"Label" as used in this supplemental labeling refers to the label booklet for Buccaneer herbicide, the "FOR AERIAL APPLICATION IN CALIFORNIA ONLY" supplemental label, and this supplement.



EPA Reg. No. 524-445-55467

Buccaneer is a registered trademark used under license.

FOR AERIAL APPLICATION IN FRESNO COUNTY, CA ONLY From February 15 through March 31 only.

For aerial application outside these dates, refer to the "FOR AERIAL" APPLICATION IN CALIFORNIA ONLY" statewide supplemental label.

Keep out of reach of children.

WARNING! AVISO!

In case of an emergency involving this product, Call Collect, day or night, (314) 694-4000.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in any manner inconsistent with its labeling.

This label must be in the possession of the user at the time of the herbicide application.

See the "GENERAL INFORMATION" and MIXING, ADDITIVES AND APPLICATION INSTRUCTIONS' sections of the label booklet for essential product information. See the 'CROPPING SYSTEMS' section of the label booklet for specific recommendations on the use of this product.

Applicable Area

This supplement only applies to the area contained inside the following boundaries within Fresno County, California only.

North: Fresno County line South: Fresno County line State Highway 99 East: Fresno County line West:

General Information

Always read and follow the label directions and precautionary statements for all products used in the aerial application.

Observe the following directions to minimize off-site movement during aerial application of Buccaneer® herbicide. Minimization of off-site movement is the responsibility of the grower, Pest Control Advisor, and aerial applicator.

Written Recommendations

A written recommendation MUST be submitted by or on behalf of the applicator to the Fresno County Agricultural Commissioner 24 hours prior to the applie 3. cation. This written recommendation MUST state the proximity of surrounding crops, and that conditions of each manufacturer's applicable product label(s) and this label have been satisfied.

Aerial Applicator Training and Equipment

Aerial application of Buccaneer herbicide is limited to pilots who have successfully completed a Fresno County Agricultural Commissioner and California Department of Pesticide Regulation approved training program for aerial application of herbicides. All aircraff must be inspected, critiqued in flight, and certified at a Fresno Agricultural Commissioner approved fly-in. Test and calibrate spray equipment at intervals sufficient to insure that proper rates of herbicides and adju-

vants are being applied during commercial use. Applicator must document such calibrations and testing. Demonstration of performance at Fresno County Agricultural Commissioner approved 'flyins' constitutes such documentation, or other written records showing calculations and measurements of flight and spray parameters acceptable to the Fresno County Agricultural Commissioner.

Application at night - Do not apply this product by air earlier than 30 minutes prior to sunrise and/or later than 30 minutes after sunset without prior permission from the Fresno County Agricultural Commissioner.

For additional information on the proper aerial application of Buccaneer herbicide, call your nearest Tenkoz member Company representative.

Read the "LIMIT OF WARRANTY AND LIA-BILITY" in the label for Buccaneer herbicide before using this product. Those terms apply to this supplemental labeling and if those terms are not acceptable, areturn the product unopened at once.

© MONSANTO COMPANY 1997

Manufactured for:

Tenkoz Inc. 100 North Point Center E. Suite 330 Alpharetta, GA 30022 U.S.A.

11/05/97

21147V1-5

Monsanto

Monsanto Company Suite 1100 700 14th Street, N.W. Washington, D.C. 20005

November 5, 1997

Hand Delivered

Office of Pesticide Programs
Document Processing Center (NOTIF)
U.S. Environmental Protection Agency
Room 266A, Crystal Mall #2
1921 Jefferson Davis Highway
Arlington, VA 22202

Attention:

Mr. James A. Tompkins (7505C)

Team Leader (25)

Subject:

Buccaneer® Herbicide: EPA Reg. No. 524-445-55467

Supplemental Labeling for Aerial Application in Fresno County, CA.

Dear Mr. Tompkins:

In an accompanying letter, also dated 5-Nov-97, Monsanto has requested that the Agency grant a Distributor Supplemental registration allowing Tenkoz Inc. to distribute "Buccaneer Herbicide", a new brand name for EPA Registration Number 524-445.

In order to allow applications of Buccaneer Herbicide by air in Fresno County, California, as referenced in the booklet labeling, Monsanto wishes to extend the aerial supplemental label previously approved for Roundup® Herbicide on the same 524-445 EPA Registration Number to Buccaneer. We enclose five (5) copies of the new supplemental label and a completed form 8570-1 for your records.

If you have any questions on this matter please feel free to contact me through Dr. Russell P. Schneider or directly at 314-694-1582.

Sincerely,

Stephen J. Wratten Manager, Registrations

R. P. Schneider

D. Fee-White

D. Rasmusson

F. Hedgecock

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		Certifica	·	Or .	·	!	(202	6. Date Applicati		
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4. Typed Name Stephe	en J. Wratten, I	Ph.D.	5. Date No y	ember 5,]	1997			1 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	654	
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PAPERWORK REDUCTION ACT NOTICE and INSTRUCTIONS

PAPERWORK REDUCTION ACT NOTICE: Profile reporting burden for this addention of information is estimated to average 0.85 hour per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other sequence of this collection of information, including suggestions for reducing this burden, to Chief, Information Policy Branch, (2136), U.S. Engiroproperted Protection Agency, 401 M Street, SW, Washington, DC 20460.

INSTRUCTIONS: This form is to be used for all applications for new registration, and use the distriction, amendment, resubmission, to applications for notifications, final printed lebeling, reregistration, etc. In order to process an application for a new registration submitted on this form, the dollowing material must accompany the application:

- 1. Certification with Respect to Citation of Date (EPA Form 8570-29). (If not exampled by 40 CFR 152.81 (b) (4));
- 2. Confidential Statement of Formula (EPA Form 8570-4);
- 3. Formulator's Examption Statement (EPA Form 8570-27);
- 4. Five copies of draft labeling;
- 5. Three copies of any data submitted; -
- 6. Authorization letter where applicable;
- Matrices where applicable.

Submission of Labeling - Labeling should first be submitted in the form of draft labels with all applications for new registration. Such draft labels may be in the form of typed label text on 8.5 x 11 inch paper for submission or a mockup of the proposed label. If prepared for mockup, it should be constructed in a way as to facilitate storage in an 8.5 x 11 inch file. Mockup labels significantly smaller than 8.5 x 11 inches should be mounted on 8.5 x 11 inch paper for submission.

Submission of Data - Data submitted in support of this application must be submitted in accordance with PR Notice 86-5.

SPECIFIC INSTRUCTIONS: Please read the instructions listed below before completing this application. First determine the type of registration action, listed in Block A, for which you are submitting this application. For applications submitted in connection with New Registration actions, Section I, III, and IV must be completed by the applicant. For applications submitted in connection with amended reregistration actions, resubmissions, notifications, reregistrations, etc., Sections I, II, and IV must be completed by the applicant.

Block A - Check the appropriate action for which you are submitting this form.

SECTION I - This section must be completed, as applicable, for all registration actions.

- 1. Company/Product Number Insert your Company Number, if one has been assigned by EPA. This number may have been assigned to you as a basic registrent, a distributor, or as an establishment. If your product is registered, insert the Product Number.
- 2. EPA Product Manager If known, fill in the name and PM number of the EPA Product Manager.
- 3. Proposed Classification Specify the proposed classification of this product,
- 4. Product Name Enter the complete product name of this pesticide as it will appear on the label. The name must be specific to this product only. Duplication of names is not permitted among products of the same company. Do not include any brend name or company line designations.
- 5. Name and Address of Applicant The name of the firm or person and address shown in your application is the person or firm to whom the registration will be issued. If you are acting in behalf of another party, you must submit authorization from that party to act for them in registration matters. An applicant not residing in the United States must have an authorized agent residing in the United States to act for them in all registration matters. The name and complete mailing address of such an agent must accompany this application.
- 6. Expedited Review FIFRA section 3 (c) 3 (8) provides for expedited review of applications for registration, or amendments to existing registrations, that are similar or identical to other posticide products that are currently registered with the EPA. In order for your application to be eligible for expedited review, you must provide us with the EPA Registration Number and product name of the product you believe is similar to or identical to your product. The product must be similar or identical in both formulation and labeled uses.

SECTION II - This section must be completed for ell applications submitted to amend the registration only of a currently registered product (Amendment), for a resubmission in response to an Agency letter. for notifications to the Agency, for the submission of final printed labeling, for reregistration and for any other action that pertains to a specific EPA-registered product. This section is not to be used for a new application for registration.

Subject of submission - Check the applicable block and provide the Agency letter date if appropriate. Provide a brief explanation of the purpose(s) for the submission, such as "the addition of a site, pest or crop (specify)"; "amend the Confidential Statement of Formula by..."; "reregistration submission"; "general label revision of use directions." Attach a separate page if additional space is needed.

SECTION III (Packaging and Container Information) - This Section must be completed for all applications submitted in connection with new registration or applicable amendments.

- 1. Type of Packaging Check the appropriate block if your product will be packaged in the indicated packaging types. Indicate the size of the individual packets and number perfected container.
- 2. Type of Retail Container Indicate type of container in which product will be marketed.
- Location of Net Contents Indicate the location of the net contents information for your product.
- 4. Size(s) of Retail Container Specify the net contents of all retail containers for your product.
- 5. Location of Use Disscribes Indicate the location of the use directions for your product.
- 6. Manner in which label is affixed to product Indicated the method product label is attached to retail container.

SECTION IV (Contact Point) - This Section must be completed for all applications for Registration actions, i.e., new products registration, resubmission, "metro," reregistration, atc.

- 1-5. Self-explanatory.
- 6. EPA Use Only.

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